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Tankcontainer MAGAZINE

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Publisher
Duvel Media
www.tankcontainermedia.com

Editor
Leslie McCune
leslie@tankcontainermedia.com

Advertising
Ed Andrews
ed@tankcontainermedia.com

Design & Production
Zai Khan Advertising
zaikhan@btinternet.com

www.tankcontainermedia.com

Registered office
53 Grove Hill, London E18 2JB, UK

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High levels *of market activity*

Two thousand years ago, the Roman poet Ovid mused: "All human things hang on a slender thread, the strongest fall with a sudden crash". And so it seemed with the global economy in 2020 as Covid-19 evolved from a Wuhan curiosity into a worldwide pandemic. We join the mourning for the 2.6 million souls - many in our industry - that have left behind lives and loved ones.

The tiny sliver of human existence that is the tank container sector has played a small but critical role in delivering sanitising products and essential food grade and chemical supplies.

The tank container sector had a relatively benign crisis. Shipments by the leading tank container operator increased by 1.9% to a record high, the world's fourth largest lessor was acquired and there were numerous small add-on acquisitions by both lessors and operators. New designs appeared, such as Van Hool's titanium tank containers for Hoyer for highly corrosive molten monochloroacetic acid. Trends that were already evident in the industry were accelerated, not least its digital transformation.

The global tank container fleet grew by 5.3% to 686,650 in 2020, according to ITCO. Operator fleets were broadly unchanged except for NewPort, which grew by 17% (to 37,500 units). The lessor fleet grew by 3.6%, with 16% increases at CS Leasing and GEM.

However, these positive headlines mask a year of steep declines in market activity followed by a rapid recovery, most markedly in China. Q2 demand for newbuilds was so low that some manufacturing lines were stopped. Tank production - 88% of which was in China - fell by a third with a near two-thirds collapse at Welfit Oddy and Singamas. 'No-frills' T11 per diem lease rates bottomed at $3, some say, with ex-stock prices for this type of over-supplied equipment hitting an historic low of under $13,000 (prices peaked at $37,000 in 2007-8).

Cash-on-cash yields dropped to the lowest for two decades and utilisation rates came under pressure as the idle fleet reached an all-time high. Repositing costs increased due to the higher number of out-of-position tank containers and the extraordinary increases in ocean freight rates.

In December, we laid out the rationale for our belief – which proved correct - that the tank container market had passed its low point. Since then, the sector has seen a sharp recovery in activity, which will eventually boost profitability gains for both lessors and, to a greater extent, for tank container operators. The market remains volatile and disorderly.

Demand in most regional markets has recovered and activity is high, especially in China, where demand for tank containers to meet its domestic needs and export commitments has surged dramatically. Yields are improving as lease rates firm and, although still low by historical standards, are favourable - and less volatile - compared with other container assets. 2020 fleet utilisations faded, although off-hires were less than anticipated by lessors.

Newbuild purchasing has recovered and prices have strengthened, driven partly by increases in nickel, by far the largest cost component of a tank container.

However, the dramatic escalation in ocean freight rates - caused by carriers controlling capacity and space allocation by cancelling or blanking sailings - is having the desired effect (for carriers). Significantly higher freight rates are combining with widescale port and/or terminal disruption to create global tank container imbalances and shortages at a time of high demand. When freight costs are passed through to customers, with an operator margin, operator profits will increase.

Chicago-based railcar lessor GATX entered the tank container leasing market in December with the €175m acquisition of Netherlands-based Trifleet Leasing. It joins the small but exclusive group of lease companies offering railcars, rail wagons and tank containers. The group includes SNCF-owned Ermewa, owner of Eurotainer/Raffles, the world's second largest tank container lessor, said to be for sale through Lazard.

In further acquisition news, Arcus Infrastructure Partners - rolling stock investors in Alpha Trains and Angel Trains - acquired a majority stake in medium-sized lessor Peacock. This is a tangible sign of the new interest by infrastructure investors in the tank container sector. Expect more.

The prospect of CIMC and NTtank being listing on the Chinese stock exchange will no doubt excite many. ■

Leslie McCune, *Editor*

Chemspec Europe 2021 postponed

Chemspec Europe The 35th International Exhibition for Fine and Speciality Chemicals will now take place as a live and digital hybrid event from 29 to 30 September 2021.

Mack-Brooks Exhibitions has today announced the postponement of Chemspec Europe 2021, which was scheduled to take place at Messe Frankfurt in Germany from 19 to 20 May 2021. Instead, the International Exhibition for Fine and Speciality Chemicals will run as an enhanced show from 29 to 30 September 2021, combining the physical event with an online platform. This decision was taken in light of the ongoing Covid-19 pandemic.

"Continued uncertainties regarding travel restrictions and event planning by the authorities have prompted us to reassess the situation. It is our priority to minimise both health and economic risks for all participants, so we have come to the decision to hold the show in September 2021", explained Liljana Goszdziewski, Portfolio Director of Chemspec Europe. "We believe that the most responsible decision at this stage is to postpone. However, with the rapid expansion of vaccination programmes globally and the implementation of Chemspec Europe as a hybrid event, we are confident to hold a successful show for exhibitors and visitors later this year."

The Chemspec Europe Event Team will communicate closely with customers and partners over the coming weeks and months and thank all our exhibitors, partners, suppliers and visitors for their support during this challenging time.

Enhanced event experience

For the first time, Chemspec Europe will take place as a hybrid event, merging the established on-site offer with interactive digital networking opportunities. Visitors will have the chance to explore bespoke solutions, connect with the community and learn about the latest trends and developments – both face-to-face and online.

"Over the last 35 years, Chemspec Europe has become a powerful and well-known live event in the fine and speciality chemicals industry. Chemspec Digital 2020 showed that virtual exhibition stands and online meetings do indeed provide new sales opportunities and a successful way to generate business leads", recalled Liljana Goszdziewski.

"Combining the two event formats will allow every exhibitor and visitor to attend Chemspec Europe 2021 in the way they feel most comfortable with – regardless of any lockdown regulations and travel restrictions.", concluded Liljana Goszdziewski.

Chemspec Europe features the full spectrum of fine and speciality chemicals for various applications and industries, including pharmaceuticals, agrochemicals, polymers, green chemicals, food and feed ingredients, flavours and fragrances, bio-based chemicals, pigments and dyes, paints and coatings, household and cleaning chemicals, adhesives and sealants, petrochemicals, electronic chemicals and many others. ■

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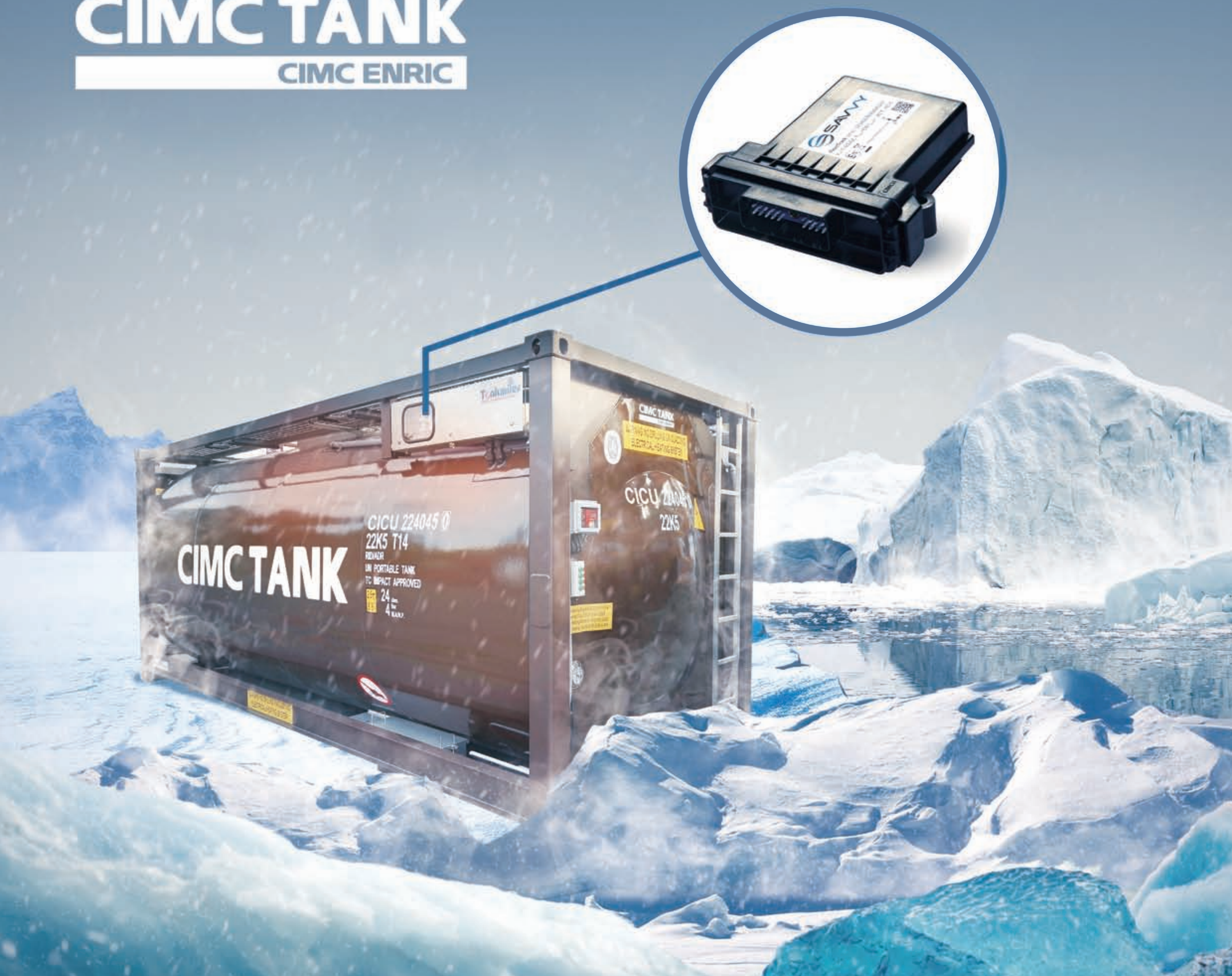


TANKMILES HEATING SYSTEM

Björn Schniederkötter will take over the position of Chief Executive Officer (CEO) of the HOYER Group with effect as of 1 February 2021.

Change of leadership in the Executive Board of the HOYER Group

Björn Schniederkötter held various management positions in the Nagel Group. The qualified freight forwarding merchant began his career in 1996 by training in the family business, which specialises in foodstuffs logistics. This was followed by various posts with management responsibility in Germany and abroad, before he was appointed as Chief Operating Officer on the Board of Directors of the Nagel Group in 2014.

Giving reasons for the personnel decision, Thomas Hoyer, Advisory Board Chairman of the HOYER Group, says, "Not only do we have confidence in Mr Schniederkötter's specialist know-how but also we have formed the impression that he both understands the requirements that HOYER expects of a CEO, and will put them into practice."

As Schniederkötter explains, "HOYER is a highly specialised logistics company with an international reputation.

Ortwin Nast leaves a strongly financially established company with an outstandingly good market position. Under his strategic leadership, the logistics company achieved steady further development of its portfolio.

Among other things, HOYER is regarded as a pioneer in the area of digitalisation. Its turnover and earnings rose by approx. 50 per cent under his leadership in spite of various economic crises, and the company increased investments in future-oriented assets.

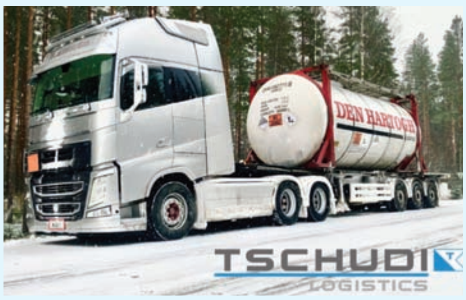
Thomas Hoyer says, "We thank Mr Nast for his efforts on behalf of HOYER, and we greatly regret his departure. He has sharpened the profile of HOYER as a provider of comprehensive logistics solutions." Hoyer adds, "We look forward to working with Mr Schniederkötter, and together we take an optimistic view of the future." ■

Den Hartogh Logistics acquires Tschudi Tank Transport in Finland

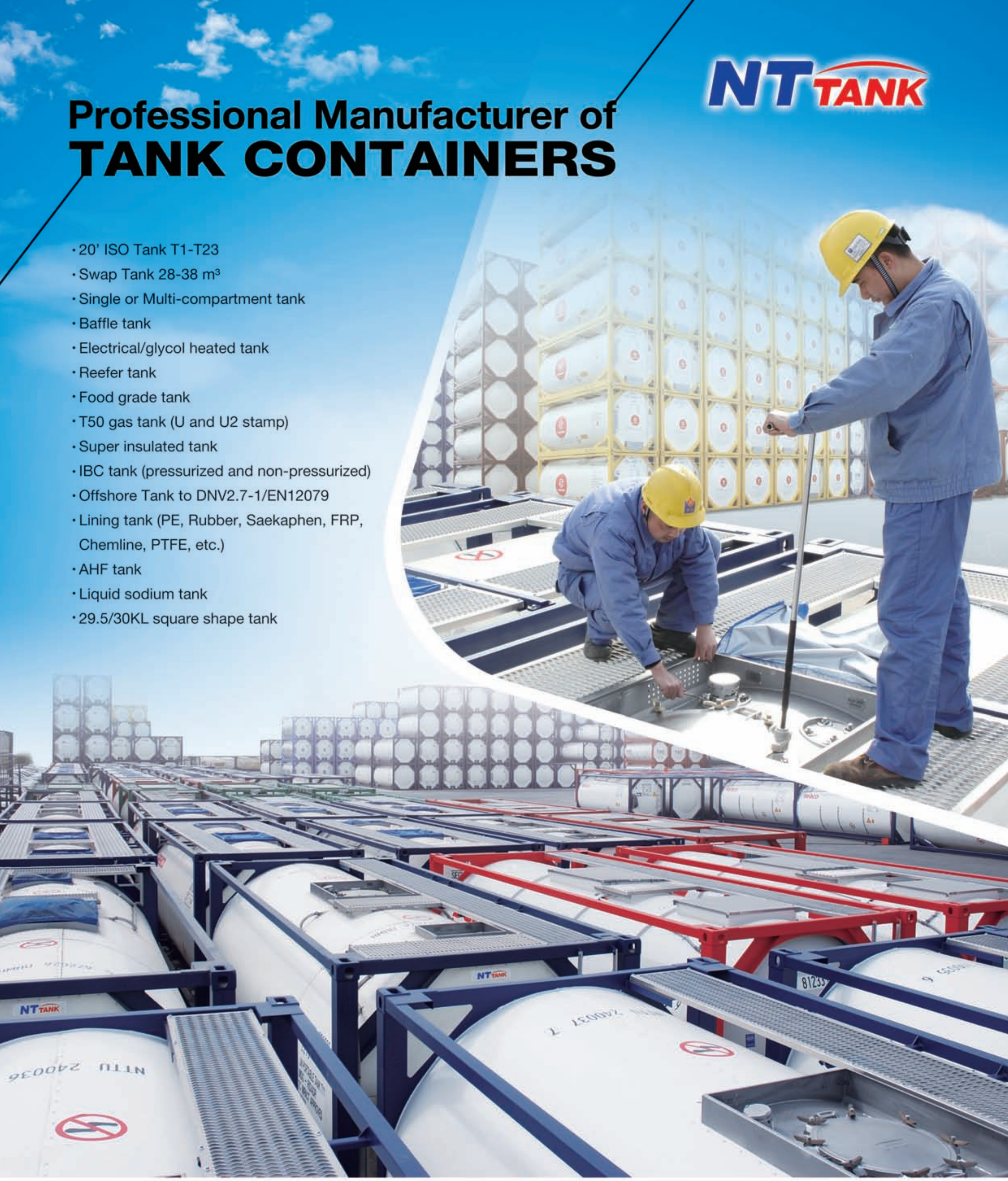
Den Hartogh Logistics has come to an agreement on the acquisition of Tschudi Tank Transport Oy in Finland, the tank transport division of the Tschudi Group. Taking over Tschudi's liquid bulk activities will strengthen Den Hartogh's network in Northern Europe and particularly Finland and the Baltics.

The acquisition follows years of close and successful collaboration between Tschudi and Den Hartogh in Finland. "We have worked in close cooperation with Den Hartogh Logistics for over a decade and we are convinced that their acquisition of our liquid bulk activities in Finland will further help develop and expand their business. The deal ensures Tschudi Logistics can focus on expanding and developing the project and forwarding segments further in Europe as well as worldwide", says Eskil Ødegaard, Managing Director of Tschudi Logistics Holding AS.

Joep Aerts, Business Unit Director of Den Hartogh Liquid Logistics: "We look back on a successful partnership with Tschudi as a reliable and professional network partner. The



Finnish team have powerful expertise and knowledge of the local market with a strong customer focus and a high service level. By combining our strengths and experience we can further densify the Den Hartogh network. We welcome the Finnish team to the Den Hartogh family and look forward to operating and growing our network together." ■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H Essers expands multimodal capability with acquisition of *Tank Management*

Logistics service provider H Essers has announced the acquisition of the Norwegian-French company Tank Management, more than two years after acquiring tank container specialist Huktra.

Tank Management specialises in multimodal transport services of liquid chemicals. With branches in Oslo, Le Havre, Milan and Rotterdam, its geographic coverage complements Huktra's European presence.

The further development of multimodal liquid bulk transport fits in H.Essers' strategy of delivering integrated and sustainable logistics solutions to the hazardous chemical goods industry.

Tank Management has a turnover of €40m, with 35 employees. Its fleet consists of 800 modern ISO tanks capable of transporting liquids at different temperatures with a range going from -10° to +120°C.

As with Huktra, all units are equipped with real-time track & trace. The temperature inside Tank Management's fleet can be remotely monitored and controlled.

Nordbo & Philippe, owners of Tank Management, said: "Thanks to the acquisition by a strong industrial player such as H Essers, Tank Management will continue to excel in service, to grow and to expand its expertise."

The takeover was completed at the beginning of July. The Tank Management directors will remain on board, as was the case with the Huktra takeover.

The focus in the first phase is on integration and consolidation , specifically for conditioned liquids transport for the chemical industry. This entity represents a turnover of €100m and a fleet of 2,000 ISO tanks. It isa full takeover. Future acquisitions are not being ruled out

Den Hartogh and Shell contract sees four new LNG-powered trucks in service

Den Hartogh has put four new LNG-powered trucks into service under a long-term logistics contract with Shell Deutschland Oil, transporting dimethyl ether on a dedicated route from Shell's Rheinland refinery in Köln.

"The deployment of these cleaner Volvo FH LNG trucks marks the long-standing partnership between Den Hartogh and Shell and their mutual goal to shape a better and more sustainable future," Den Hartogh says.

Shell's intention is to help LNG reach an impactful scale in the heavy-duty road transport sector and thus contribute to lower emissions of CO_2 and air pollutants despite the continuing increase in road freight transport. Den Hartogh is specialised in transporting LNG and other liquefied gases for its customers and now also using LNG powered trucks.

CONTACT

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Senior appointment for *Suttons International*

Nuray Holtkamp-Tamur has joined Suttons International as Commercial Director.

Nuray brings with her over 15 years' experience in the automotive industry, most recently as Sales and Marketing Director for Europe with Hendrickson.

Working alongside Suttons International's Regional Directors, Nuray will head up the development of the division's growth strategy, focusing on developing and executing a solid commercial plan specific to different regions of the world while cohesive at group level.

John Sutton, CEO Suttons Group said:

"Nuray's appointment ensures we have the right people in the right seats. Suttons International are investing significantly in its Commercial Team which has also seen the growth of the Marketing Department and global sales teams in order to drive forward the 2030 vision.

"Nuray will head up all commercial activity for Suttons International, working with our Marketing, Sales and Regional teams."

Nuray said of her appointment:

"I am eager to get started with Suttons International and build on a successful 100 years of experience. I want to ensure we continue to develop the right level of technical expertise, tank availability and excellent service for customers whilst increasing our presence across the globe."

Suttons operates in the UK with a fleet of more than 500 vehicles focused on the chemicals, gas and fuel sectors and internationally transporting more than 9,000 tank containers around the globe. The company has key business centres in New Jersey, Houston, Widnes, Antwerp, Kuantan, Singapore, Shanghai and Tokyo. ■

Albatross Tank-Leasing begins suppling 40-ft LNG tank containers

Albatross Tank-Leasing has begun the supply of 40-ft LNG tank containers to its customers, on both short- and long-term leases.

"The number of LNG filling stations and the LNG bunkering market is drastically increasing," the company says. "In order to integrate intermodal and road transport in the supply chain, the demand for flexible equipment is high. The configuration of the connections of the LNG tank containers can be customised upon demand." A service package is also available, through established partners. ■

New €25 million *HOYER complex* up and running

HOYER's newly-built logistics centre will help develop comprehensive supply chain solutions in contract logistics.

The new 38,000 m2 logistics centre in the Dormagen Chempark is one of the biggest, most complex supply chain projects managed by the company. After a construction phase of around two years, the facilities on the previously unused site were gradually brought into operation earlier in the summer.

The building project's design was preceded by extensive analyses of customers' needs and their supply chain processes. Around 20 employees in five facilities now ensure smoothly-running processes along the supply chain of the local chemical industry.

Ulrich Grätz, global director, supply chain solutions (SCS) at HOYER Group, said: "The logistics centre is entirely built and structured according to customers' differentiated needs.
"Extensive analysis, discussions and tightly scheduled project management formed the basis. Despite minor delays due to the effects of the COVID-19 pandemic, we are very satisfied."

HOYER invested around €25 million in the logistics centre. Around 20 employees operate state-of-the-art equipment on the site.
The complex consists of a total of five subdivisions.

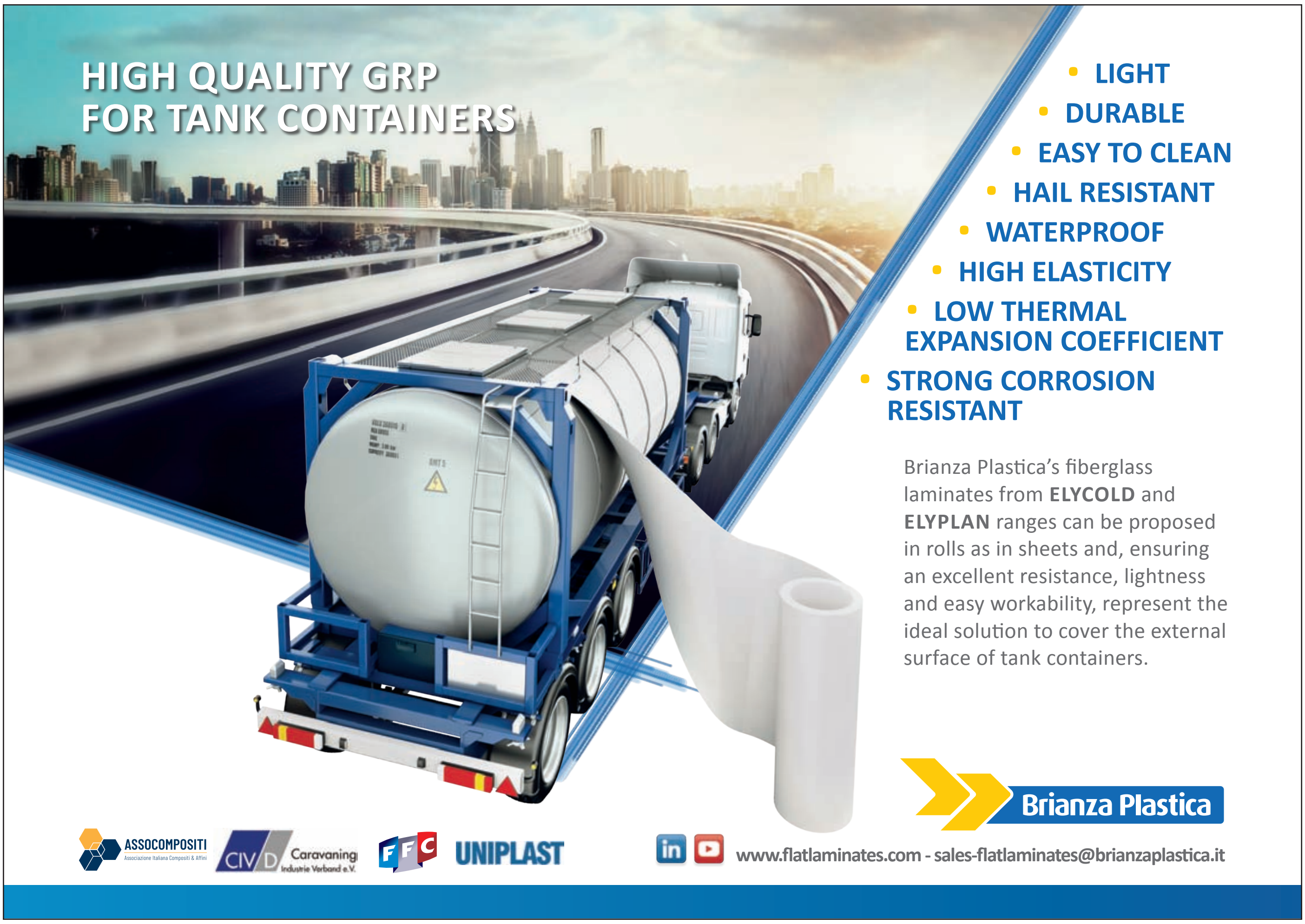
The HOYER Group is currently represented in more than 30 different international chemicals producers' plants, including at several sites in Germany, China and Saudi-Arabia. ■

RSA-Talke Robotic filling line installed in Dubai.

RSA-Talke has installed a fully automated robotic filling line at its chemical logistics hub in Dubai.

"This machine, with which the company sets a new innovative standard, enables the repackaging of hazardous chemicals according to the highest safety standards," the company states. The unit is currently fitted with two lines, with a capacity to refill up to 110,000 tpa, depending on viscosity.

"The system is completing our integrated solution set-up at our site in Jebel Ali free Zone. We can receive nearly all type of highly hazardous liquid chemicals in bulk, repack it and store the material in our chemical warehouse at the same facility," says Markus Koepsel, general manager of RSA-Talke. "In addition, we can instantly clean the empty tank container or road tanker and make the equipment ready for the next job, minimising the downtime, all under one roof." ■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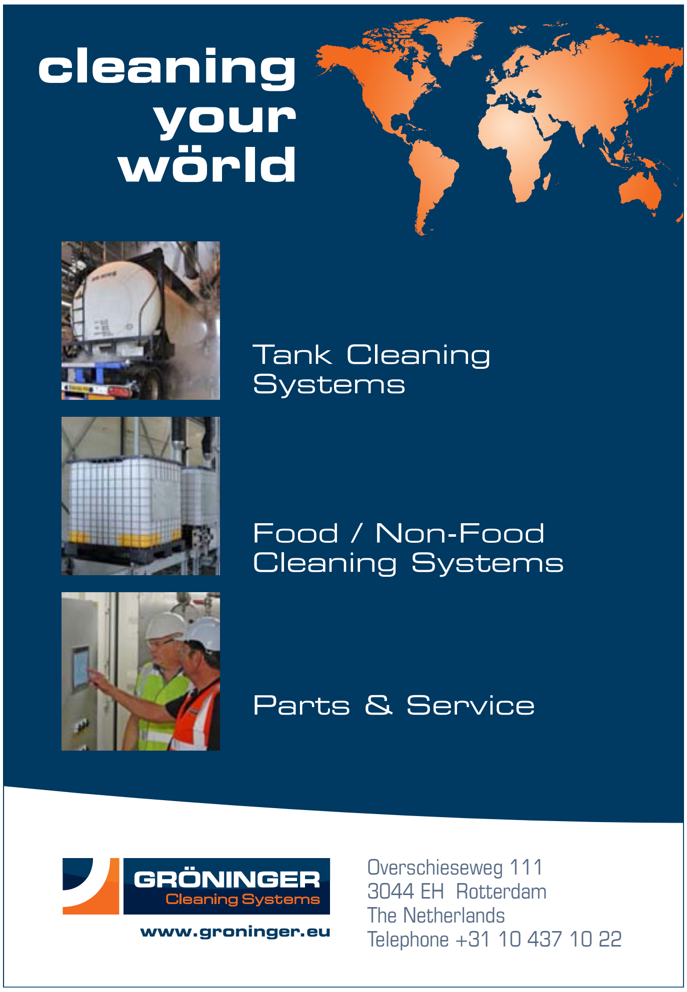
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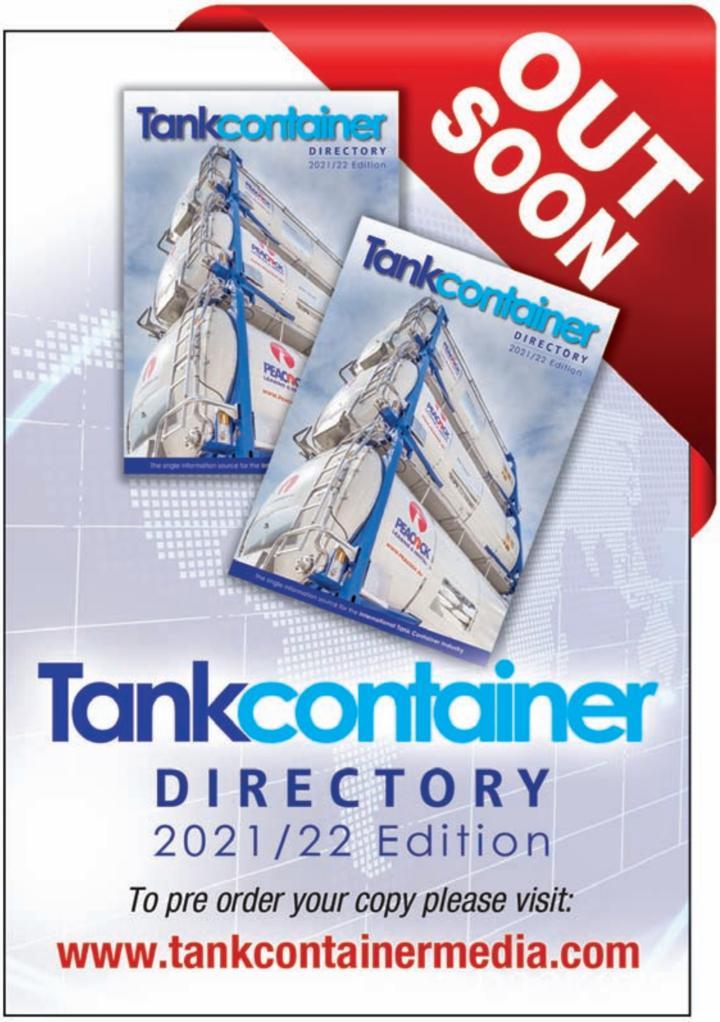
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Kerry Logistics Network (KLN) accepts offer from *SF Holding*

Kerry Logistics Network (KLN) has accepted an offer from SF Holding to take a 51.5% stake in the company at a price of HK$ 18.80 per share, equivalent to an investment of HK$ 17.5bn (US$ 2.25bn).

As part of the transaction, KLN will sell its warehouse assets in Hong Kong to a wholly owned subsidiary of Kerry Holdings Ltd and its business in Taiwan, including its interest in the stock-listed Kerry TJ Logistics Co, to another wholly owned subsidiary of Kerry Holdings Ltd. KLN says the moves will help it operate under an asset-lighter model, comparable with those of its international industry peers.

"The cooperation will bring together the core competencies of SF Holding and Kerry Logistics Network across multiple verticals to create a leading Asia-based global logistics platform to meet ever-changing demands," KLN says. "Under the strategic cooperation, Kerry Logistics Network will be positioned as SF Holding's platform for international business.

SF Holding and KLN will also collaborate with each other in Greater China to better align their respective businesses." Subsequent to the completion of the transaction, KLN will remain listed on the Hong Kong Stock Exchange and will continue to operate under the 'Kerry' name. ■

Novatek Gas & Power Asia and Saibu Gas deliver *LNG* to China.

Novatek Gas & Power Asia and Saibu Gas have completed their first trial delivery of LNG in tank containers to Tiger Gas for distribution in China. The LNG was delivered from the Hibiki container terminal in Japan to Shanghai in tanks owned by Tiger Gas.

"Together with our partners, we have successfully completed our first trial delivery of LNG in ISO containers to China," says Lev Feodosyev, Novatek's first deputy chairman of the Management Board. "It is forecasted that ISO containers of LNG will exponentially increase over the upcoming decades, allowing us to diversify our customer base by including small-scale LNG consumers and entering the downstream markets in China and Japan."

Earlier this year Tiger Gas placed an order for up to ten ships designed specifically for the transport of tank containers carrying LNG, in anticipation of the start of a supply contract with Petronas in 2022. ■

Suttons to invest £0.5m at its *Widnes depot*

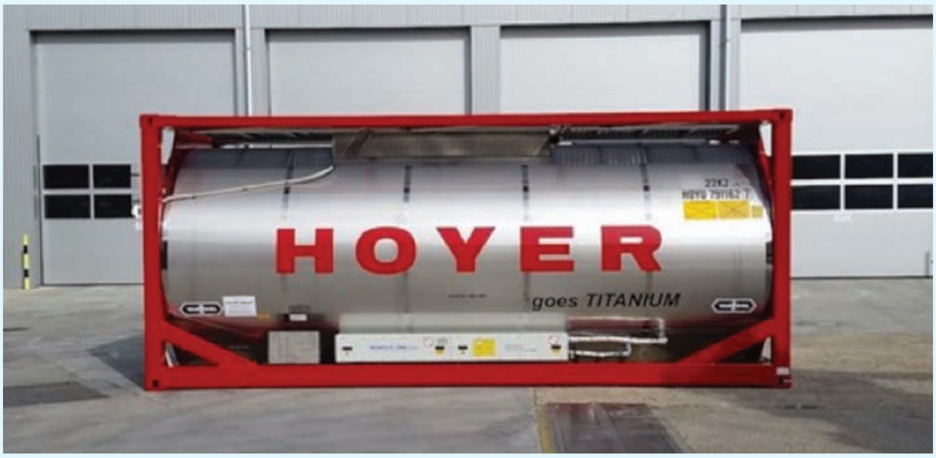
Suttons has announced a £0.5m investment to upgrade the wash bay at its Widnes depot, expanding capacity while also improving sustainability and safety.

This follows more than four years of planning and will involve the replacement of all electrical control systems, pump sets and high-pressure pumps, and the installation of a new effluent plant. The existing 48-bar pressure pump system will be replaced with a 100-bar variably system, one of the first of its kind in a UK wash bay, which will save water and time and reduce the need for tank entry.

The new control system will also allow bespoke wash cycles to be created.

"These improvements to the effluent plant will allow the wash bay to tackle a wider range of products and the improved automated effluent system will reduce the downtime and hours spent completing maintenance cycles; ultimately driving uptime and increased volume capability," Suttons says. ■

Innovative titanium tank container from *Hoyer*



HOYER has developed an innovative titanium tank container, to handle highly corrosive dangerous goods for a major chemical industry customer.

The new tank design is the result of two years of intensive development work and construction, involving Hoyer, its customer and tank builder Van Hool. Two new titanium tank containers are entering service this month, dedicated to the transport of molten monochloracetic acid.

Hans Demarest, engineering director of Hoyer, explains: "Corrosive dangerous goods are among the most challenging products from the logistics point of view. Managing the supply chain on the manufacturer's side, maintaining optimum transport conditions and delivery to the end customers on the haulier's side require special know-how and experience."

A major challenge for the project team was the attachment of the stainless steel frame to the titanium tank, as the two materials cannot be bonded. With that challenge overcome, the next issue was keeping the cargo at the correct elevated temperature. A specially designed heating system, with Ex approval, was developed. The titanium units are equipped with Smart Technology.

Hoyer is in fact no stranger to using titanium in its tank containers, noting that another positive aspect of the material is its durability. Three titanium tanks joined the Hoyer fleet 30 years ago and are still in use today, with the company saying that this long life also justifies the higher building cost. ■

New Chemion container storage area at *Chempark Dormagen*

Chemion has put a new container storage area into service at Chempark Dormagen after a 2.5-year approval and construction process.

The new 15,000-m2 plot, named 'CT DOR II', has space for around 1,000 freight and tank containers and responds to growing demand from chemical producers that are increasingly using tank containers, says Chemion. ■

Den Hartogh takes delivery of 29 new swap body tank containers

Den Hartogh has taken delivery of 29 new swap body tank containers, the first batch of an order of 225 units ordered from Singamas.

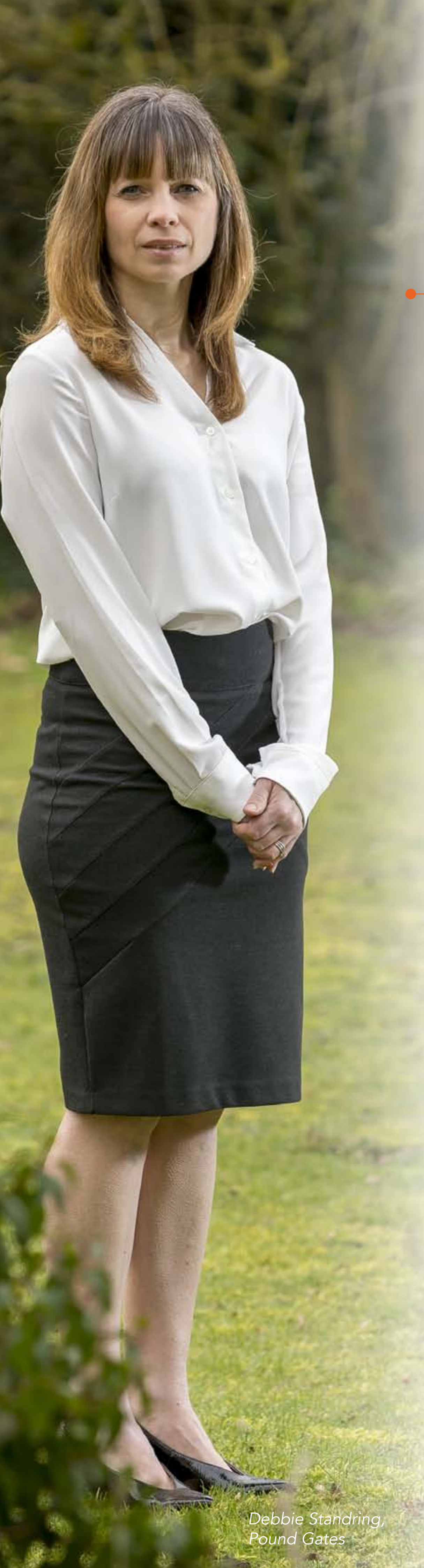
The 35,000-litre baffled tanks are fully ground-operated and equipped with an IMT temperature sensor for remote connectivity. The new units arrived at Den Hartogh's Logistics Service Centre in Antwerp at the end of January. ■

Kerry-ITS has agreed a merger with the *cotac Group*

Tank container depot specialist Kerry-ITS has agreed to a merger with the cotac Group and is now known as cotac ITS (Asia) Pte Ltd.

The deal confirms cotac's earlier announcement that it is nearly doubling in size by adding depots in Asia and North America. Kerry-ITS says the move will strengthen its position in Asia while improving the range and quality of its tank depot services.

As part of the transaction, William Loh, managing director, has stepped down but will remain in an advisory role for four years; his replacement is Sebastian Loh, who will work with the support of the cotac management in Germany. As a result of the deal, the Shanghai depot is to discontinue operations. ■



Debbie Standring, Pound Gates

Protecting *the industry*

The business of moving liquid products in tank containers involves managing risk. Insurance expert Pound Gates describes to *Tankcontainer Magazine* how it helps protect the industry.

TCM: What is the history of Pound Gates?
DS: In 1988 Allan Pound was an insurance broker at Lloyd's of London and Ivan Gates was a freight forwarding agent in Felixstowe, UK. Based on a long-standing business friendship they decided to start a new business together, Pound Gates Group, based in Ipswich in the UK. The Group included Pound Gates & Co Ltd, an insurance broker specialising in marine and transit risks.

Kevin Collins took over Pound Gates in 2002 and has led the business through a period of significant growth based on a strong focus on its specialisms.

Today, Pound Gates is recognised internationally as insurance experts for the tank container industry, providing certainty in what is a highly specialist area of insurance and risk management.

TCM: What are typical covers for operators and lessors?

DS: Our insurance solution for operators includes:

- Physical loss or damage to tank containers.
- Liability for general average and salvage contributions in respect of insured equipment.
- Liabilities to third parties for the physical loss and damage of third party property, for the death, injury or illness of any third party; or pollution.
- Fines and other penalties imposed by an authority resulting from regulatory breaches relating to the carriage of cargo, immigration, safety at work and security.
- Costs including Mitigation, Investigation and Defence, Disposal and Quarantine and Fumigation costs.
- Errors and Omissions cover for legal or contractual liability arising from documentary issuance and/or preparation; clerical and/or documentary procedures; failure to follow and/or provide instructions; provision of advice or information; mis-delivery, wrongful delivery or delay in delivery of cargo; and declaration or description of cargo.

Leasing companies can insure for:

- Physical loss or damage to tank containers while off-lease or on-lease to lessees - either on a contingent basis or with full equipment cover if units are leased under a Damage Protection Plan (DPP) or similar.
- Liability for general average and salvage contributions in respect of insured equipment.
- Liabilities to third parties for the physical loss and damage of third party property, for the death, injury or illness of any third party; or pollution.
- Fines and other penalties imposed by an authority resulting from a breach of regulations relating to the carriage of cargo, immigration, safety at work and security.

No industry is immune from cyber attacks and the tank container industry is no exception.

Debbie Standring, Pound Gates

- Costs including Mitigation, Investigation and Defence, Disposal and Quarantine and Fumigation costs

- Lessee Default cover including loss of rental revenue and potential rental income; repatriation, repositioning and repair costs; and investigation, defence and mitigation costs.

- Errors and Omissions cover covering liability for financial loss incurred by a customer arising from performance delays or failure of the leasing company to perform their contractual obligations.

- Investors Contingency cover covering investors for loss or damage to or liability of each tank container where the leasing company's insurance policy fails to pay out or does not pay out the full amount of a claim.

Each solution is tailored to our clients' precise needs and is not an "off the shelf" product. In addition, we maintain an in-house claims handling, support and consultancy team.

TCM: Can the risk of a company's software system being hacked be insured?

DS: No industry is immune from cyber attacks and the tank container industry is no exception. There have been multiple examples of breaches over the past few years and, with an increasing use of automated and digital systems, a wide variety of risks to which the industry is exposed.

Attackers may be able to breach the company's operating system, gain access to commercially sensitive data and disrupt company operations. They may try to distribute links to malicious websites or files by email or they may gain access to a company's systems and block authorised personnel from accessing it until a ransom is paid.

Pound Gates can arrange cyber insurance to cover the above risks. Cyber insurance will protect businesses against business interruption exposures resulting from an increasing reliance on technology, as well as the privacy risks resulting from the storage of sensitive data, and cybercrime. Policies should also be able to provide access to forensic investigators, IT security experts and crisis communication experts who will respond to incidents.

TCM: What are the most common types of tank container loss?

DS: Tank containers are recognised as one of the safest methods of transporting bulk liquids. Being extremely robust the likelihood of impact damage, and resulting leakages, is low. However, this does not mean to say that there is no risk of incidents occurring which may result in a loss. And whilst incidents may only occur infrequently, the loss can be potentially huge given the cargoes carried.

The most common type of loss relates to contamination of cargo. Whilst contamination can be the result of

a number of factors, often such contamination issues are not directly connected to the tank container. Insufficient cleaning, particularly of discharge valves and baffle plates, following the transport of the previous cargo is often the prime factor. This could result in the presence of foreign particles or product discolouration, both of which may be identified during pre-discharge sampling.

Another primary concern for tank containers is corrosion. Tank containers are typically constructed of stainless steel and so are resistant to staining and corrosion. However, the passive oxide layer providing this protection is susceptible to damage. The carriage of certain cargoes - or certain cleaning and maintenance operations - may lead to corrosion and pitting, possibly causing a breach in the tank container and a product leak.

Injuries for those working with tank containers must also be considered. Again, incidents occur infrequently but can be extremely serious. There is a risk to any persons working in confined spaces such as the tank container barrel if the correct protective equipment is not used and the correct safety procedures are not adhered to. There is also a risk to those working at height. Again, safety procedures should be strictly adhered to and protective equipment utilised.

Of course, whilst not relating directly to tank containers, nor solely to the tank container industry, a leasing company's financial exposure to default of their customers should not be forgotten when talking about losses. The coronavirus pandemic has compounded the worsening global economic situation and more potential default incidents are being managed. A company's financial exposure may not purely be the lost rental income from outstanding invoices but would also encompass lost or damaged equipment, repatriation costs and legal fees which could have a significant financial impact.

TCM: What has been the largest tank container-related claim to date?

DS: The largest tank container-related claim to date has been the MSC Flaminia incident in 2012. On 14th July 2012, a fire in Hold 4 caused an explosion on board the MSC Flaminia whilst the ship was en route from the US to Belgium. 22 crew members and two passengers abandoned the ship, with the lives of three crew members being claimed. The fire was eventually brought under control and the vessel salvaged. An initial $100 million was generated in cargo claims.

The MSC Flaminia fire was caused by the auto-polymerisation and ignition of the chemical DVB80 (Divinylbenzene 80%) in the tank containers being carried on board. It was found that the chemical was stored incorrectly whilst on shore and loaded incorrectly on the vessel for the crossing to Europe - being labelled as a marine toxin rather than an explosive hazard. This resulted in the tank containers being stored in the cargo hold rather than on deck.

In 2018 New York District Court found that two parties bore the sole responsibility for the incident - Deltech, the 'shipper' was 55% strictly liable and Stolt Tank Containers B.V. (NVOCC/tank container operator) was 45% strictly liable for the fire and explosion.

The MSC Flaminia case highlighted to tank container operators their potential exposure in the event of an accident involving hazardous cargoes, and that they must take responsibility for the cargoes they are transporting.

Debbie Standring is a Client Executive at Pound Gates.

With over 20 years in the marine insurance industry, Debbie specialises in the placement of insurance for the shipping and transport and logistics industries. She has a particular interest in the tank container sector, where her expertise is tailored to delivering insurance, risk management and claims solutions for both leasing

Independent tank container market *reviews an extraordinary year*

Reviewing the tank container market of 2020 seems such an inconsequential endeavour in the context of the personal tragedies and economic chaos that the virus visited upon many during the year but the industry did, nevertheless, play a vital role in maintaining essential supplies, delivering protective hygiene products and enabling a strong rebound in most regional markets.

The speed with which the tank container industry adapted to the challenges of last year was remarkable. Operational teams were rapidly switched to remote working with integrated systems and operational tools developed to encompass the entire interconnected supply chain, providing new levels of transparency, accuracy and visibility. The considerable investments that leading players had made in digital technology paid dividends with customers more interested than ever in the location and condition of their cargoes. Digitalisation remains the most critical function enabling the development of a business into new geographies, services, products and business models.

Market

The '2019 Review of the Year' described that year as 'not great' and expected 2020 to be worse. It was, and made much worse by a then-unknown virus called Covid-19. The dramatic fall-off in economic activity moved out from Asia to Europe, before impacting the Americas, but the ripple effect meant that, instead of a sudden collapse in tank container demand, there was a significant - although not catastrophic - reduction in overall demand at any one time.

Overall demand withered, with shipments down 5-10% and some changes to product flows. Beyond the use of tank containers as transport assets, their use as intermediate temporary bulk storage - and capability to respond to rapid changes in supply chains - become prized benefits.

Tank container manufacturing stopped for a time at some companies, prices dropped to historic lows of under $13,000 for standard plain vanilla T11s, lease rates drifted down to sub-$4 for commodity tank containers and utilisation fell (although by less than expected, partly due to empty tank container availability being tightened somewhat by the slower return of equipment). Tank production - 88% of which was in China - fell by a third to 35,800 units with a near two-thirds collapse at Welfit Oddy and Singamas.

Although cash-on-cash yields for lessors fell, they were still at a level at which the cash cost of purchasing a tank container would be repaid within a third of its useful economic life.

Chemical and food producers often relied on tank containers for continuity of supply and for stock building during last year's crisis, sacrificing supply chain efficiency to avoid far more costly production stoppages. Supply chains - even those of some major petrochemical companies - demonstrated a surprising lack of resilience.

Cash conservation was the top corporate priority for many, delaying investment decisions. Fortunately, interest rates remained so low that even companies having no requirement for capital issued fund-raising bonds, often to reduce their blended effective interest rate or weighted average cost of capital. Debt costs were squeezed down to around 2% for some tank container players (low interest rates drive up asset prices, including tank container assets - one reason for the close scrutiny of the sector by many investors).

By Q4 2020, operators and lessors were re-ordering newbuild tank containers in significant quantities. There was a four month waiting list for high cube general purpose box containers and reefers from

expert Leslie McCune

Chinese manufacturers, and demand boomed for newbuild and leased tank containers to meet China's stellar growth in domestic trade and exports (driven by pent up demand following the lockdown and by strong orders for Covid-related products).

The OECD forecasts global GDP returning to its 2019 level by the end of 2021, by which time China's GDP is expected to be 9.7% larger than 2019. The IMF projects global GDP growth of 5.5% in 2021 - reflecting vaccine protection and further US and Japanese stimulus packages - after a fall of 3.5% in 2020. The global economy is therefore forecast to exceed pre-pandemic levels this year, implying a short-lived world recession.

There were dramatic increases in the price of sea lanes with ocean freight rates escalating as carriers controlled capacity and space allocation by cancelling or blanking sailings. Widespread port congestion at the end of 2020 caused delays which, combined with transport shortages and bunker surcharges, led to a strengthening of tank container rates and what is likely to be a sustained increase in tank container prices, driven by escalating raw material costs.

The acquisition of Trifleet Leasing by Chicago-based rail lessor GATX for €175 million was the most significant M&A event in the tank container sector.

Regional activity

China's economy recovered early and strongly and remains on track to overtake that of the US in the next decade. It has, by some margin, the world's biggest manufacturing sector and Chinese factory activity expanded in Q4 at its fastest rate in two and a half years. New state-imposed environmental standards have led to record imports of specialty chemicals in tank containers as small scale domestic producers (and some tank container cleaning stations) close.

European tank demand dropped drastically in Q2 2020, although imports of hygiene and cleaning product components such as IPA and ethanol increased substantially. Europe partially recovered by Q4.

Middle East tank container activity was weak for six months but specialty chemical companies such as SABIC, Sadara, Tasnee and Sipchem maintained production. A major source of weakness for UAE and Saudi Arabian tank container demand was the substantial reduction in Indian demand, where Covid constraints - including a rapid tightening of credit - restrained economic activity. However, by year end, Saudi Arabia and the UAE recovered to close to peak demand levels.

North America had a strong Q1 and remained relatively robust. The nature of tank container cargoes changed as the oil price fell to just one third of its January 2020 level while demand for alcohol-based sanitising products rocketed. Movements of hydrochloric acid inevitably fell dramatically as shale fracking economics became temporarily unviable.

South America tank container movements involving hygiene cargoes were complicated by government agency interventions.

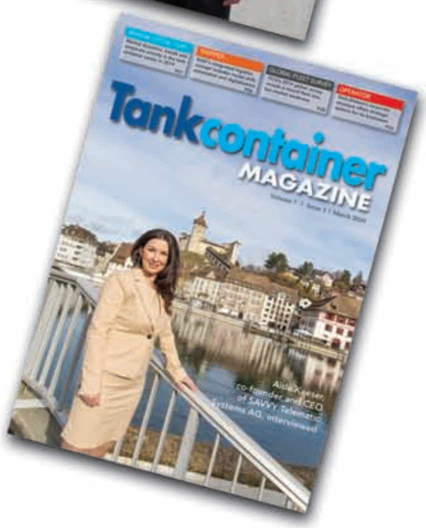
Regional chemical imbalances were evident, and will continue, supporting deep sea tank container activity.

Fleet

The global tank container fleet grew by 5.3% to 686,650 in 2020, according to ITCO. Operator fleets were broadly unchanged except for NewPort, which grew by 17% (to 37,500 units). The lessor fleet grew by 3.6% to 316,710.

Tank container demand saw relatively little fall-off in 2020 as a whole and, for Covid-related cargoes such as ethanol and IPA, demand for tank containers was at record levels. Lessors had fewer off-hires than they anticipated and two lessors - CS Leasing and GEM - increased their fleets substantially (fewer off-hires may signal business confidence but operators - the largest market for leased tanks - often choose to extend leases, keeping them on-hire and available for future business rather than incur the often substantial costs of repositioning and remediation repairs at off-hire, which can be $4,000-$7,000 for phosphoric acid tank containers).

The idle leased fleet was estimated to be 14% of the global fleet, up from 10% (tank containers might be idle because they are undergoing maintenance and testing, are being repositioned to a demand area or remain as newbuild stock in the manufacturers' yards). ➔



Pent-up demand in the second half of 2020 also served to keep the number of idle tank containers low, not least because China's industrial production had exceeded pre-pandemic levels by Q4. In November, dry box manufacturers were booked out until February 2021, a lead indicator of a pickup in demand for tank containers.

Low idle rates were also supported by a considerable increase in the use of tank containers for temporary intermediate bulk storage due to supply chain dislocations, production disruptions and access constraints at distribution centres. Bulk liquid chemical terminals at several key global hubs were full and therefore not available as a storage option for chemical producers and traders.
'Just-in-case' storage was more widely considered, not least because some 'Just-in-time' supply chains failed to be sufficiently resilient.

Close management of the procurement of ocean sea freight is a key profitability driver for deep sea operators, which routinely buy 1,000 lots on transatlantic and Asia-Pacific sea lanes. In 2020, much higher ocean freight rates become a feature of the market as ocean carriers restricted capacity and imposed new surcharges.

Liner services were disrupted, and Asia-west coast US container spot rates (including space guarantees and equipment priority fees) hit a record high of nearly three times the rate of 12-months previously. There were major escalations in spot rates across several trade lanes.

Contentious General Rate Increases (GRI) were announced for mid-September, with the Federal Maritime Commission warning it may seek an injunction for a 'collusion' breach of the Shipping Act. Some GRIs remained, some were pared down and some were cancelled.

In Q4, space was 'sold out' from most Asian ports to the US and, unlike tank containers, the availability at depots of dry box containers was very tight with shippers obliged to pay additional fees of $500-$2,000-a-box for equipment and space priority. Equipment shortages, especially high-cubes and reefers, were a major problem. To ease the upward rate pressure, Chinese authorities forced state-controlled COSCO and OOCL to add capacity by reinstating six blanked Trans-Pacific sailings.

Finance

According to their latest full year financials, Bulkhaul had the highest publicly reported pre-tax return on sales of any tank container operator in 2019 (18%, or £47.9 million EBIT on turnover of £270.7 million). Market leader Stolt Tank Containers' 2020 return on sales was 9.8% ($51.2 million EBIT on turnover of $520.6 million).

Tank container lessors are too small to access the capital markets but rely instead on Asset-Backed Securities (ABS) financing. Lessor debt costs fell to around 2% with some smaller lessors finding it difficult to finance specialised tank containers, which often have higher returns. Larger operators often relied on their own credit lines for finance.

Manufacturing

Tank production fell by a third to 35,800 units in 2020. Demand from Chinese tank manufacturers by both lessors and operators significantly increased in the second half of the year but manufacturing over-capacity kept prices down initially, although material cost increases are driving equipment prices higher.

Tank production is increasingly based on firm orders with a trend towards more technically-specified tank containers for specific cargoes, routes or customers. Even lessors that used to bulk buy generic 26,000 litre T11s are getting more specific about, for example, the number and type of vertical or horizontal baffles, walkways and stainless steel molybdenum content (higher molybdenum content increases the cost but widens the range of products that can be carried in a tank container, thereby increasing business opportunities).

Several box manufacturers also produce tank containers, where activity was low for a few months last year. Tank container production usually lags behind box production and, consistent with this market dynamic, tank container production suddenly picked up in Q3. CIMC, which produced nearly half of all tank containers manufactured in the world in 2019, produced a third fewer units in 2020.

Den Hartogh, celebrating its 100th anniversary and the granting of the 'Royal' predicate, were ordering 100 tanks-a-month from Chinese manufacturers in Q4, and a 225 batch of 35,000 litre baffled swap bodies is being delivered from Singamas this year.

Welfit Oddy - accounting for 6% of global production - was busy with swap body production for Lanfer and Bertschi among others and produced a batch of 50 food grade tanks for Hoyer in Q4.

Mergers and acquisitions

In the tank container sector, the biggest M&A news came in December 2020, when Chicago-based rail lessor GATX Corporation broadened its intermodal position by acquiring Trifleet for €175 million. Better known as 'the leading global railcar lessor', 122-year-old GATX paid a

healthy EDITDA multiple to enter the tank container leasing market with Trifleet, the fourth largest global tank lessor, being an attractive platform for 'additional commercial opportunities'. These would include the large, well-known chemical companies leasing both railcars and tank containers.

GATX will no doubt be interested in the performance of Ermewa, owned by SNCF Logistics, a European leader in leasing rail wagons and, in Eurotainer/Raffles, a global leader in tank container leasing.

In the food grade market, Hillebrand - a leading alcoholic beverages logistics provider - acquired Braid to create new capabilities to handle non-hazardous bulk liquids such as edible oils, wine and non-hazardous chemicals. The acquisition creates one of the largest food grade tank container fleets (3,300 units).

Investors were inhibited by the lack of visibility on acquisition targets that Covid-19 created, dampening enthusiasm for corporate activity in the tank container sector (especially if the financial strength of a potential acquirer was made less secure by the uncertainties surrounding coronavirus).

Ermewa, a European leader for rail freight wagon leasing and - via Eurotainer/Raffles - the world's second largest tank container lessor - is said to have been, finally, put up for sale by its parent, French National Railways (SNCF). SNCF's finances are in a dire state due to strikes and an expected Covid-related €4 billion hit to its operating results.

Ermewa employs over 750 staff, had a 2019 turnover of €486m (gross profit €263m) and could be worth €2.5 billion. In more recent acquisition news, Arcus Infrastructure Partners - rolling stock investors in Alpha Trains and Angel Trains - acquired a majority stake in medium-sized lessor Peacock, with the CEO maintaining a minority interest. This is tangible evidence of the new interest by infrastructure investors in the tank containers sector. Expect more.

Lessors/Operators

Some newer lessors only have a small team and limited infrastructure. Their minimal cost base enables them to offer low rates although service levels may reflect their lack of depth. However, low rates may be difficult to sustain as their fleet grows, requiring more investment in staff and infrastructure to manage the increasing number of off-hires and depot on-hires.

In 2020, five of the top eight lessors appeared to have fundamentally unstable ownership while operators - a number of whom are family owned - have, in general, greater long term stability. Some operators explored a move into leasing, seeing it as a way to create economies of scale by growing their overall fleet or as a way to offset periods of hardship in their conventional operating business (although when operators struggle, lessors usually also struggle).

The rationale was that a new leasing business would not require any substantial additional investment for an operator because the operator could use its own pre-existing global service network.
In addition, it was believed that lower costs could be achieved by having more flexibility with on-hire/off-hire locations than current lessors. Should an operator own a depot, maintenance and repair costs may also be lower than that charged to other lessors.

Some tank container operators already have leasing interests but the leasing business model - essentially a net spread between rental income and interest expense - is fundamentally different to that of an operator and requires different expertise and resources.

Among operators, H.Essers - a €750 million Belgium-based liquid bulk transport and warehouse firm with 6,500 employees - has been particularly active, expanding geographically and adding transport assets. Its acquisition of Tank Management in 2020, with its small fleet of 800 tank containers, follows its 2018 acquisition of Huktra, which had 900 units. H.Essers - together with Hoyer, Bertschi and Den Hartogh - achieved the coveted 'Gold' standard in Dow's 4STAR award programme for supply chain excellence.

General

More broadly, tank containers strengthened their credentials as the safest, most reliable and most sustainable transport mode for small lot sizes of hazardous and high purity products. The essential infrastructure for their more widespread use (maintenance and repair depots, cleaning stations, port facilities, management expertise, etc) is systematically expanding, supported by ITCO, the industry's trade association.

The tank container industry continues to invest and work hard at maintaining its excellent safety, health, environment and quality (SHEQ) record, with the best managed companies in the sector prioritising SHEQ at the highest corporate level. Genuine leaders are aware that SHEQ performance is often a lead indicator of a company's financial performance.

The use of tank containers for the movement of lower value, non-hazardous and food cargoes is being made increasingly economically viable by the development of larger, lighter tank containers such as Van Hool's 35,500 litre High Volume Ultra Light pressurised unit (being deployed by Van den Bosch), the so-called 'super-volume' designs from Dalian CRRC in China and Trifleet's 35,000 litre lightweight frame swap bodies (the first lessor to offer lightweight frame swap bodies when they were introduced in 2015). The mega-sized 73,000 litre B-TC BASF-class tank containers (launched in 2017) and Hoyer's new titanium tank containers, developed and built by Van Hool for highly corrosive molten MCA (monochloroacetic acid), highlights the innovation capability of the sector's leaders.

Contact: ***lm@chemicalmanagement.co.uk (+44 7783042664)***

Anne Transport: it's personal

When her father advised her to 'Do what you are happy with', 27-year-old Anne Sophie Meijndert found it easy to decide on her next career step – she started her own transport company, together with her father. *Felicity Landon reports.*

If you were to pass a truck from Anne Transport, you would know who the driver was – their name will be on the door. It is just one element of the personal touch that Anne Sophie Meijndert has insisted on in her transport company.

Like its owner, the company is young. Meijndert, 27, officially started Anne Transport, based in Moerdijk in the Netherlands, at the beginning of last year. Anyone setting up a new business can expect to face challenges in the early months but who could have predicted what 2020 would bring?

"We launched the company on 10 January. In February and March, Covid-19 was hitting us," she says. "It certainly wasn't the start I planned but luckily we didn't see any effect and work is still going strong. Also, I was thinking – if we can survive this, we can survive anything. It has been a difficult time for most companies but luckily we have had good people around who are willing to help. Everyone was on the same page – customers, drivers, etc. We just have to go through it."

Meijndert has the experience, having worked as a planner at Meijndert International for five years until her father Rien sold the transport company two years ago.

She had expected to continue working at the company after it was sold. "But it didn't really work for me – I no longer felt at home," she explains. "My father said, 'Do what you are happy with'. I really loved the transport world so for me it was an obvious choice in working out what I was going to do. I thought – why not? I started my own transport company."

A number of drivers who had worked for Meijndert International were keen to continue working with her, as were some previous customers. "It was a very easy start. Knowing we already had good drivers was much better than having to start making new connections. Also, clients I already knew wanted to work with me, so I could start really quickly. The company grew fast. I am also fortunate to have my father in the background – if I need help with or advice, I can always call him."

Anne Transport focuses solely on moving tank containers, in line with Anne Sophie Meijndert's specialised background. She started from scratch with five Scania trucks. "We were supported by Scania finance. We had known them for a long time – they trusted us, they gave us their support."

A year later, the company has 19 trucks on the road – 16 of its own and three owned by drivers who work solely for Anne Transport.

Although the company is based in Moerdijk, the trucks are not always based there – they go home with the drivers, who live all over the Netherlands. "We drive everywhere, so it makes sense. We always have something for them to move on the way home at the end of the week, and they can be back at work earlier on Monday. For us, it is really good that they are all over the country."

There are seven more trucks on order and lined up for delivery before the end of 2021, together with one tank trailer. At present Anne Transport hires in tank containers as required – it has one of its own, and the plan is to invest in more. Eighty per cent of the cargo carried is chemicals, and foodstuffs are also an important part of the business.

"I think the most important thing we do is that we make it very personal"

Anne Sophie Meijndert

"With chemicals, it is so important to know what you are doing," says Meijndert. "We are working with a lot of dangerous products – our drivers have to know what they are doing and how to prevent or deal with any dangerous situation. Our drivers go through training every year. Some they organise themselves but mostly we organise the training and try to do it in a group."

The company also has a mentoring system for new drivers. "When someone new starts with us, they have an experienced driver allocated to help them. As the new driver, you are expected to call your mentor every day. That way you gain additional information you maybe didn't get from training – from a driver with experience."

There is work enough for the whole fleet although there have been some unusual ups and downs. "It is a really challenging time with Covid-19; one day all the customers call, the next day none," she says. "But, overall, it is really stable and every day we have the challenge of getting all the work done. We don't want to disappoint anyone."

At present most of the work is concentrated in the Netherlands, Belgium, France and Germany but the company also frequently sends drivers into Italy, Spain and Hungary. Tank repairs and cleaning are carried out at a choice of depots at Moerdijk.

What would Meijndert say makes Anne Transport different to its competitors? She doesn't hesitate. "I think the most important thing we do is that we make it very personal," she says. "We call all the drivers by their first name. It isn't just a number with us. If someone joins us, we are loyal to them.

"Each driver has their name on the door of their truck, to let them know that we appreciate them and that they are really valued by us. They are proud of their work and what they do."

As well as the name on the door, each driver can also choose their own slogan for the truck; choices include 'You'll never walk alone', 'The Flying Dutchman' and, one of her favourites, 'At your service'. "That reflects something that I always say – 'no' is not an option. We always go for it and are always at your service."

Having this personalisation on the trucks shows customers that 'we are really a team', says Meijndert. "We do it together and people can count on us. If you invest in your people, you will see the results – they are happy to work for you and have a smile on their face, which is important for them and for our customers. To be a team and make it personal – that is what we try to create and that is what makes us different."

Meijndert works long hours and is clearly passionate about the industry. Growth seems inevitable. "When I started, I said to myself that I wanted to keep a small company because I like the personal touch. However, it is like when the customer asks for an extra truck – are you are not going to say no? My ambition is really to keep growing with our customers. If they want more, we will grow with them because we want to give a good service.

"The important thing is that as we grow, including investing in the trucks coming this year, we must keep our services at the same quality. It is important to keep that team spirit and feeling that we have now as a company."

And finally – what would be her own choice of slogan? "Sometimes I say, 'Alone you can do so little but together you can do so much'. That would be my slogan." ■

Anne Sophie Meijndert,
Anne Transport

A third of a century *in the business*

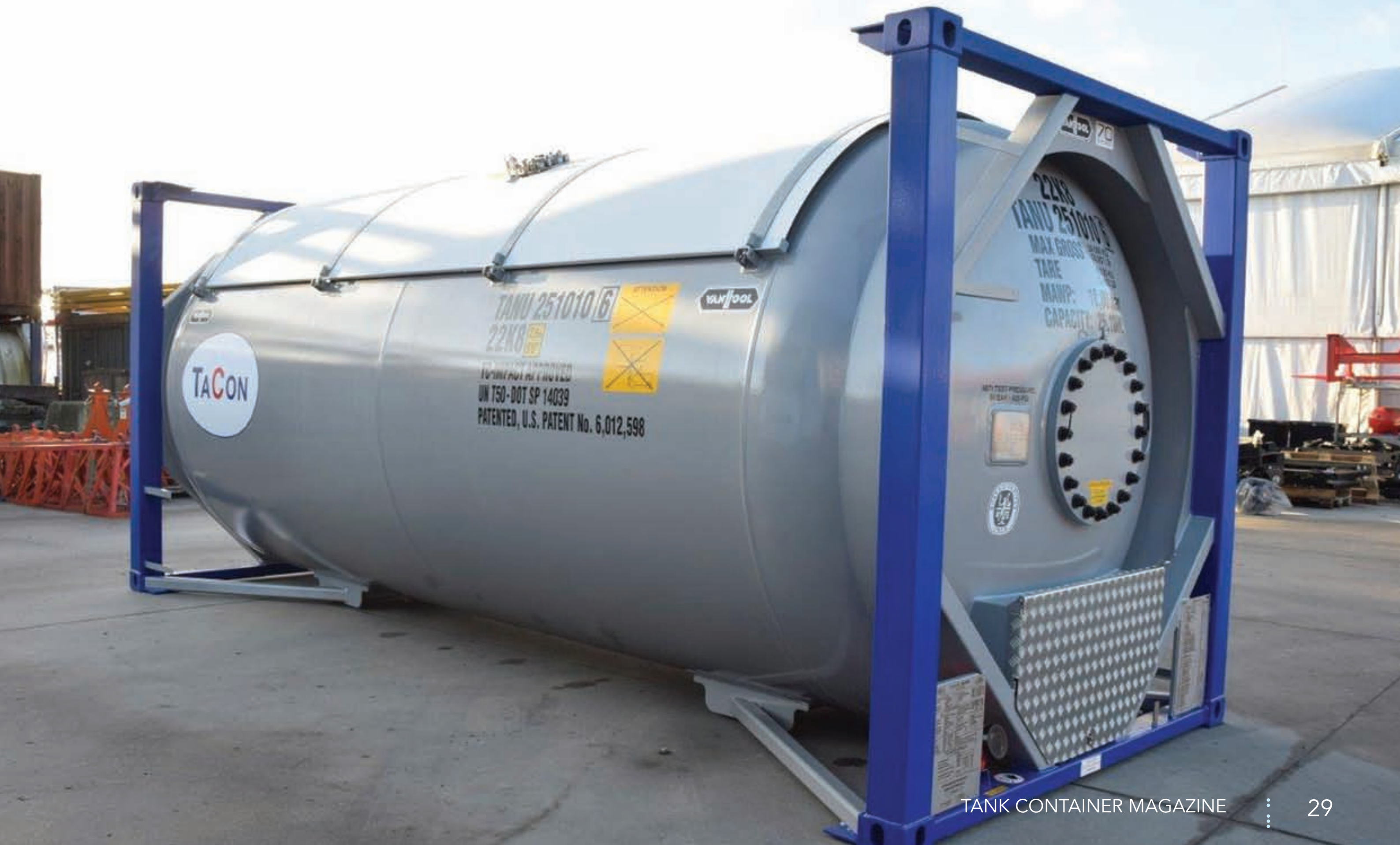
TACON was founded in Hamburg in 1988 and remains an owner-managed company. The core business is tank container rental for the transport and storage of gases liquefied under pressure, liquid chemicals, food and powdered products. *James Graham reports.*

> *"Everyone of us has their own focus, but what sets us apart is that everyone always has the same level of knowledge"*
>
> *TACON*

Key to the performance of the five-person team of employees is that "everyone of us has their own focus, but what sets us apart is that everyone always has the same level of knowledge," says the company. TACON's office is in Braak, near Hamburg. The company was formed when Helmut Kohl was West German chancellor. Despite this longevity, the company embraces the modern tank container business environment, with its disturbing trend of a race to the bottom in rates.

It says: "TACON tries to focus on special equipment and not on standard equipment. Of course, we also have standard equipment in order to be able to serve our customers' inquiries but the special segment is far more interesting for us. In addition to special tank containers for liquid chemicals and food, we also focus on gas containers.

"The prices for standard equipment are extremely low. We cannot and will not measure ourselves against this. When investing into standard equipment we mount additional features, such as remote air control, handrail, full walkways and additional valve connections. The safety of the tank container is very important. Our customers know that they pay a little more with us, but they also get more for their money." ➔

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Rental

On their recently revamped website, TACON invites requests for quotes from new and existing customers for tank container rental. Clients are naturally keen to understand how long it will take to get a response.

The company is clear: "It all depends on the request." As in the old adage about how long is a piece of string, a lot depends on the complexity of the enquiry.

TACON says: "If it is standard equipment for a known rental period, you will probably receive your offer on the same day. If it is a special project with special equipment or special technical requirements, it will probably take a few days. For such inquiries, we usually have to consult manufacturers or workshops.

One thing that concerns the company is demographic changes in Europe which is seeing a fall in millennials and Gen Z in the workforce. The company says: "Experienced specialists are particularly difficult to find for the rental of gas containers, special containers and high temperature tanks.

"The International Tank Container Organisation (ITCO) has been working hard for years, and we think they are already successful at making the industry better known and promoting it more. "The tank container world may have to become even more digital and use social media channels more often. Trade fairs for young professionals or lectures at schools or universities can also help.

Operations

The company's 20' UN T11 to UN T14 tank containers make up about 15% of its fleet. The company says it wants to cover a niche for customers. Most IBCs are in long-term contracts. The rest of the units are special tank containers, gas containers and IBCs.

TACON says: "We invest in building different containers every year. One year we invest in gas containers, the next year in standard equipment. The number is heavily dependent on our fleet utilisation and the market demand. In total, we lose less than five containers a year."

Many TACON customers make use of its service packages: "They have very attractive inclusive services. A lot of damage is already covered, as well as a total loss in a worst case scenario.

"It is also possible to include off-hire costs such as changing gaskets, or other costs incurred during off-hire. For our customers that means planning security for the total costs and having no nasty surprises after the rental period.

"It is important for us to deal transparently with the costs from the very beginning and to protect the customer from uncalculated costs," says the company.

Since the company was founded in 1988, it has maintained "very long, very trusting and honest business partnerships."

The company also offers 'tailor-made containers'. "In short: a customer approaches us with a new request and presents us with his technical ideas for the container. We advise him and develop the ideal new container together with him. We have the container built according to the customer's decision and rent the container to our customer.

"Of course, it doesn't always have to be a new-built container. Often there is also a cheaper solution if you modify existing equipment. However, this is not possible for every request."

Customers

The main customer base for TACON is, hardly surprisingly, in Europe. What might be more surprising is that not all TACON customers come to the company fully conversant in the use and models of tank containers available. They are, after all, just after the use of a container and it may be their first time of such use. TACON knows that sometimes they have to educate customers on the correct equipment they need.

The company says: "Many customers know what they want and already have precise technical ideas for a container.

"But we also have many inquiries where only the loading product is known and it is our job, but also our service, to find the right container for the customer. In this case, we check the approvals, technical requirements, specific weight, etc.

"This is, of course, much more time-consuming but it is also more challenging and more fun for us. We often learn together with our customers. Sometimes we not only teach the customer but also learn something new. The variety of containers is huge."

BREXIT

While the company is based near Hamburg, there is no escape from Brexit and the economic impact the move may yet have on the tank container rental business. There is, however, an unexpected turn of events in relation to the UK's departure.

"In the short term, we can rent even more equipment to the UK as a result of Brexit. The demand for storage containers has increased due to the new regulations. In the long term we cannot assess it. If the UK economy suffers from Brexit, then it will certainly affect our business with the UK as well," says the company.

In the teeth of the global pandemic, TACON has been moving ahead into its future. At the end of last year, it intensified work on a new corporate design that it is now be implemented.

TACON continues to invest in new equipment in 2021 to further expand the company's fleet.

"We support ITCO with their promotion of the tank container. We find it very important to support the idea of using less plastic and acting sustainably. The tank container is an ideal and sustainable means of transport that is also suitable for storing products. It can be used for many years, is reusable and does not generate waste.

"We will continue to campaign for the use of tank containers in the future and establish them as a more environmentally-friendly alternative to drums or flexible bags," says the company. ■

Boxclever

The stars seem to have aligned for the container shipping industry but what about the tank container market, asks Philippe Hoehlinger, CEO and founder of PH Global Advisor, a risk and strategy advisor.

In the last ten weeks of 2020, dry box freight rates from Asia to Europe quadrupled to over $4,000 per TEU. Global container freight rates went up 138% between May and the end of December 2020, according to the FBX Global Container Index. In 2021, rates gained another 20% but seem to have recently stabilised.

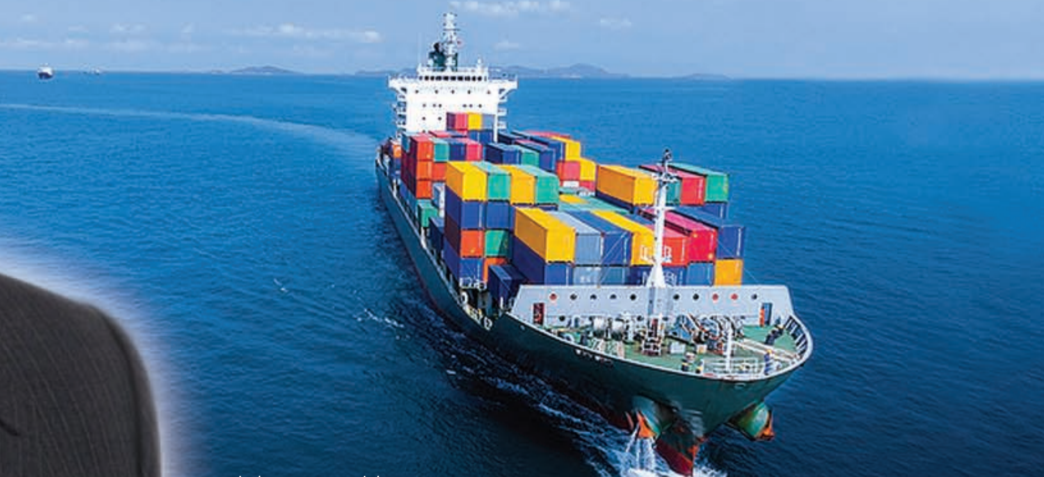
The price of a 20' dry van box is currently at least double what it was a year ago. A combination of increased rates, created by the growing demand and lower bunker prices, boosted year-on-year operating profits for carriers by over 75% in 2020, leading to the highest profits generated in 8 years.

Equipment shortages

This rosy scenario is primarily the result of imbalances. The severe shortages of boxes are the result of the different timelines Covid-19 responses and the earlier economic recovery in Asia. The magnitude and the pace of the recovery, especially in China, have been surprising, particularly given that policy makers have had to deal with tense US-China relations on trade and policies. China's export sector has been remarkably resilient, as has its supply chains, leading to what Standard & Poor's calls a "mismatch between demand for global container shipping services and available capacity". It is very likely that this mismatch will not smooth out before the second half of 2021 at the earliest.

A perfect storm?

Is it really such an ideal situation for the container shipping sector or are these the early signs of a perfect storm, the consequences of which will not be entirely visible for another 6-12 months? Some of the consequences of the current imbalances in container shipping are already visible: a localised and temporary shortage of shipping containers, congestions in ports, capacity issues on vessels and shipment delays, and even some conversion to dry bulk shipping. Shippers and forwarders are in a rather difficult situation that is not sustainable in the medium term, particularly for low value cargo. This unusual situation has attracted the attention of public authorities, notably in the most affected areas, such as Europe (the value of goods originating in Asia with destination in Europe is on average four to five times higher than on a trip from Europe to Asia). Some kind of control could well be implemented during the year. ➔



Philippe Hoehlinger, CEO of PH Global Advisor

A break from historical underperformance?

In the near future, the carriers or leasing companies that have been recently purchasing boxes face significant impairment charges once the prices for new equipment go back to more normal levels, which will happen in the next 12 months.

Before describing the current shape of the tank container industry, it is important to explore the differences between the general purpose box market and the tank container market. Noble Container Leasing Limited helped prepare the following list, for which we are grateful:

Box/tank differences

Only some of the economic drivers are common to both industries. Both industries are notably linked to world GDP growth, although dependent on supply chain disruptions, but the tank container industry is more strongly correlated to global chemical growth and the level of international investment flows which ultimately lead to the investment in large chemical projects.

- A tank container is not as much of a commodity as a dry van box because it is more technically specified, with notable differences from one tank to another. Tank containers are more expensive and are less flexible in their utilisation.
- In general, tank container manufacturers are within a more competitive landscape than dry box manufacturers, which has a relatively positive impact on prices for new equipment.
- The end markets for tank container transportation are the chemical and food industries. Both sectors are less volatile than many other industries.
- The centre of gravity of tank container transportation is much closer to Europe than that for dry box transportation. At any point of time, around 50% of tank containers are in Europe, 20% in the Americas, 2% in Africa and the rest in Asia, where domestic China already represents half of all tank containers available in Asia (and its share is growing).
- Trips are typically shorter for tank containers. Most of the trips are intra-regional or relatively shorter distance. In contrary, trades of consumer goods carried by boxes are currently very imbalanced as Asia-US or Asia-Europe represents the vast majority of trade. The US Census shows that in the last quarter of 2020, China exports to the US represented over five times the level of US exports to China (in US dollars on a nominal basis).
- The tank container transportation industry is in general much more long-term oriented, which is notably the result of tank containers having a higher value and users being more cautious in the way they are used. Tender prices are usually for a year and are difficult to change significantly from one year to another. Tank containers tend to stay on similar trades for a longer period. Tank operations' contracts have a larger horizon.
- Most operators have a buffer of tanks to be used in extraordinary occasions, which acts as a buffer for demand fluctuations. Availability is part of the service provided to end users. Another buffer is that most chemical companies have safety stocks that also help maintain a smooth supply chain of the products.

> ***"Another contributor to the tank orders is that the repositioning of tanks is more complicated and costlier as shipping freights are so much higher. Operators prefer to order new tanks and rationalize their fleets at a later stage"***
>
> *Helen Zhu, General Sales Manager of NT Tank*

Tank container market

What then is the current situation for the tank container industry and what can be expected? Despite the discrepancies, some fundamentals remain impact both markets, such as the imbalances in trade and the surge in Asian demand, particularly in China and south East Asia.

Several tank container manufacturers have recently reported full order books for the next quarter and are considering increasing their capacity to meet growing demand. At the end of 2020, tank leasing companies started placing significant orders and they are still the main contributors of the orderbook.

Nevertheless, the list of companies ordering tank containers includes European operators but also some Chinese operators, most notably some relatively newly established companies that are willing to grow internationally.

Tank container prices

The price of a standard tank container has increased by around 20% over the last 4 months. Steven Pan, Sales Director of JJAP Tank, says: "Currently the two main drivers of the price increase consist of the exchange rate between the RMB and the US dollar, and the cost increase of stainless steel. Higher stainless steel prices have been driven by the increase in the nickel price and the capacity shortages of steel mills, which have led to disruption in the supply chain". The nickel price has increased by over 40% in the past year although, this time, it has not been the main driver of a new tank equipment's price.

Once the pandemic is better controlled, the outlook will be even brighter for tank containers. India and Indonesia have been particularly damaged by supply chain disruptions and they are expected soon to grow their chemical production notably as industries intent to reduce their dependency on China.

Demand will also be fueled by growth in China domestic transportation, which is surging significantly and will be an even stronger hotspot throughout the year. Chemical plant projects will start up again when global economic uncertainty decreases, generating large orders of tank containers as the projects that have been put on hold by pandemic uncertainty are finally developed (some chemical manufactures are not even producing in full capacity). Lastly, safety stocks at chemical plants will need to be replaced at higher levels, leading to an increased demand for tank containers.

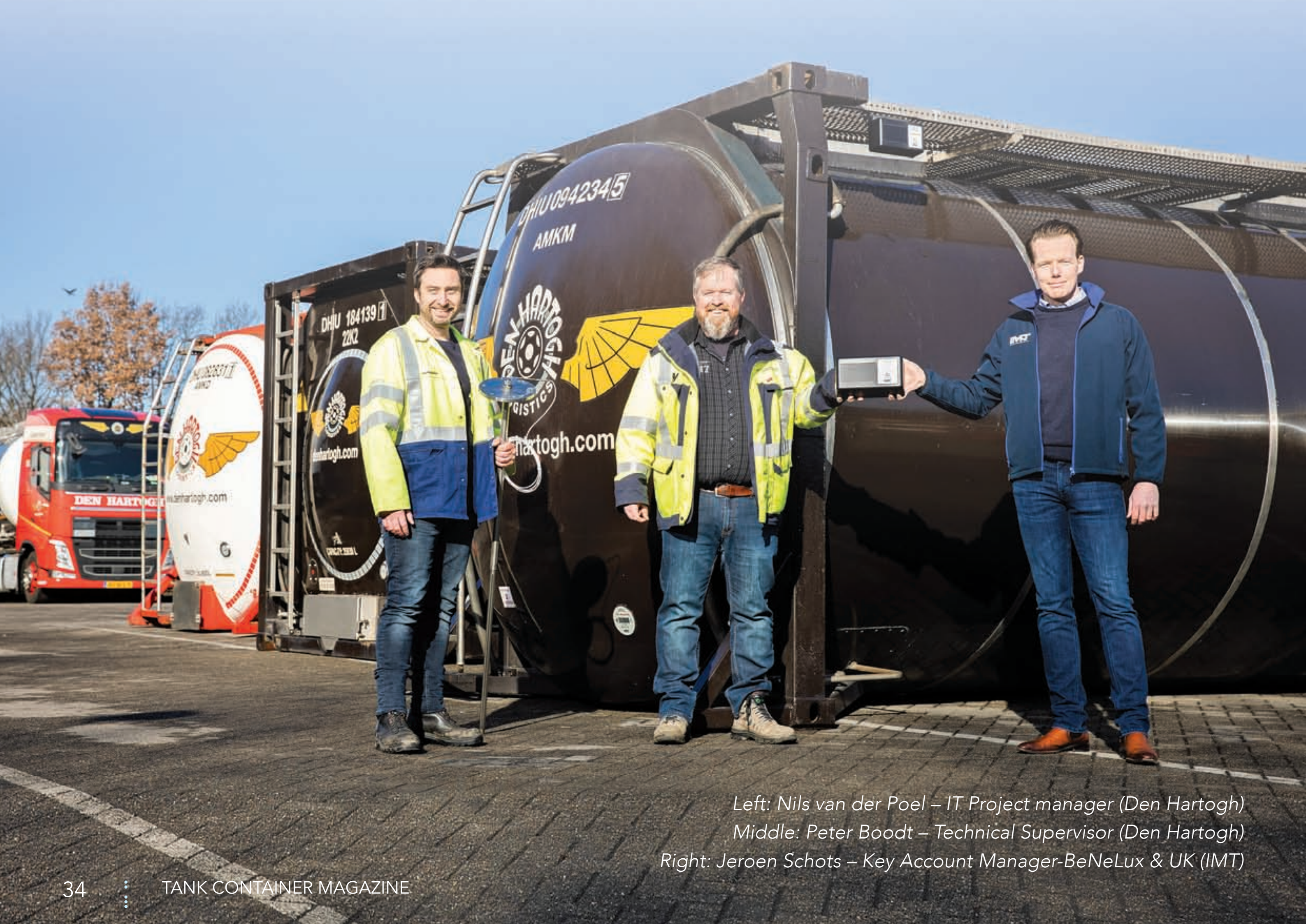
Conclusion

Overall, the tank container industry is more stable and less volatile than the general purpose box industry, which helps to flatten fluctuations. However, the stars seem to be also aligning for the tank container industry as well, although to a lesser extent than for the box market but in a more sustainable way and with lower downside risks. ■

Den Hartogh's chemistry *with IMT*

Founded in 1920, Den Hartogh brings over 100 years of experience in delivering smart logistics for the chemical and petrochemical industries. The Dutch-based family-owned company wants to offer the best possible solutions available to its customers.

The cooperation with the Dutch-based specialist in telematics Intermodal Telematics (IMT) fits perfectly with the next steps in providing smart logistics on their tank containers.



Left: Nils van der Poel – IT Project manager (Den Hartogh)
Middle: Peter Boodt – Technical Supervisor (Den Hartogh)
Right: Jeroen Schots – Key Account Manager-BeNeLux & UK (IMT)

Nils van der Poel, IT Project Manager of Den Hartogh says: "We want our customers to recognise and value our service of organising safe and reliable transport of bulk chemicals. For more than 10 years Den Hartogh has been working on various telematics projects. In close cooperation with customers, we want to further introduce SMART containers in order to improve safety, cargo quality and provide us more transport visibility. We always want to deliver a service that exceeds the market standards, and we see temperature monitoring and temperature control as a huge contribution for the high standard we set ourselves towards an optimal customer experience".

Peter Boodt, Technical Supervisor of Den Hartogh says: "What has made us choose to work with IMT was the proof-of-concept we did with the prime unit of IMT. Last winter, we had some tanks that were in northern Sweden. As you know it's dark there most of the day and there was a long period of intense snowfall. Due to these tough conditions, IMT's solar-powered CLT20-Ex (Communication and Location Terminal) kept sending its data through, which of course started to drain the batteries day after day. But after a long dark winter, when the covering snow started to melt, the batteries recharged via the solar panel to reach their full capacity again. This has proven that bad weather conditions do not seem to affect proper working ability and the batteries inside are strong enough to survive winter without being able to recharge.

"In addition to the proof of concept results, there must be a match with our suppliers. Innovation, testing and implementing requires co-working. Without chemistry and energy from both sides, it won't be a close partnership. In the case with IMT, the chemistry is certainly there. IMT moves quickly, involves us in new concepts and we help each other to become better. These are values that we as Den Hartogh really appreciate! With the telematics solutions from IMT we can act on our temperature status information in real time. IMT works with different alert notifications for when the product temperature reaches a critical upper or lower limit."

Den Hartogh goes even a step further and has for the transport of certain highly temperature sensitive products chosen the new Thermowell solution. The Thermowell solution is the ultimate, most robust and most accurate method to measure product temperature. The temperature sensor is installed inside a tube which is welded to a client-selected flange that is inside the tank container. The temperature is transmitted wirelessly to a display (WD20) that can be placed on the side of the tank. In addition, the temperature can be passed on to the CLT20-Ex so the temperature and the corresponding GPS position are visible in the portal. "With the IMT prime GPS unit CLT20-Ex, we receive the temperature through to the portal every 5 minutes.

Via the alerting modules, we can react immediately to disruptions, assert greater control and minimise risks, waste and product recalls. The accuracy of the Thermowell and the almost real time sending interval of the CLT20-Ex gives us the confidence our customers need when trusting us to carry their temperature sensitive products."

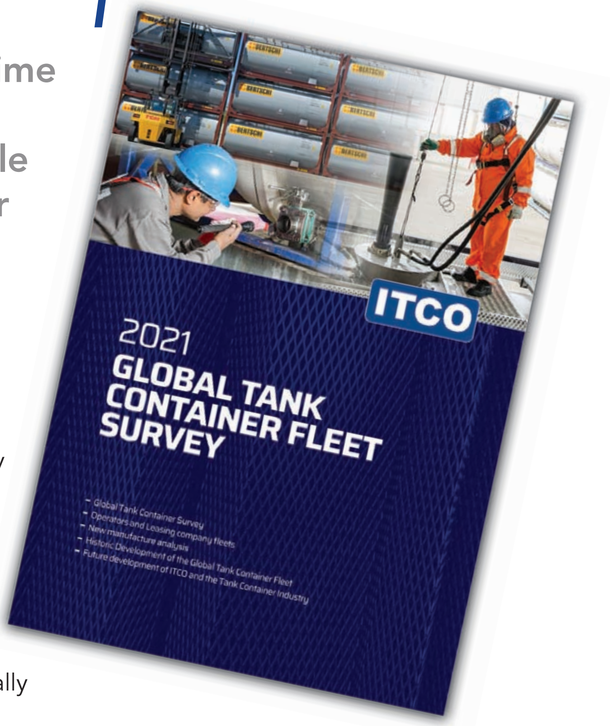
"We want to create an optimal customer experience and have better insights into our operational processes. Safety and operational excellence are embedded in Den Hartogh's culture so besides temperature, the tank position is also very important. In the further development of our partnership, we will focus on smart data integrations where IMT's business rule engine will feed our TMS system with logical data and ETA calculations. We see IMT as a partner to offer us this valuable information on tank level," says Nils van der Poel about the collaboration with IMT. ■

We want our customers to recognise and value our service of organising safe and reliable transport of bulk chemicals.

Nils van der Poel, IT Project Manager, Den Hartogh

intermodaltelematics.com

Taking the risk out of *tank container transport*



Having a long-established history of insuring maritime containers, TT Club has an intimate understanding of the tank container sector, with a current insurable interest in around 53% of the global tank container fleet. Michael Yarwood, Managing Director of Loss Prevention at TT Club shares his insights into how to mitigate the prevalent risks in tank container operations.

The 2021 ITCO Global Tank Container Fleet Survey[1] shows a continued expansion of the global fleet with the number of units growing by 5.3% in 2020, despite the market uncertainties resulting from the COVID pandemic. With the total fleet numbering just over 686,000 as of 1 January this year, steady growth is continuing after year-on-year rises of 7.8% in 2019 and 11% in the previous 12-months. Such growth can most obviously be attributed to shippers recognising the benefits of shipping their cargoes in tank containers *(in favour of drums or parcel tankers).*

There are of course regional variations with Chinese domestic bulk liquid movement developing strongly and on the international scene, the intra-Asia trade is seeing increases. However, the Middle East region, which holds around 48%* of global oil reserves and around 38%* of the world's natural gas reserves, is expanding its chemical manufacturing industry based on its ready access to cheap raw materials. China, as well as the emerging markets of the Indian sub-continent and South East Asia, are expected to be the major importers of the near future.

Large scale growth in the sector will undoubtedly provide many opportunities for logistics operators of tank containers as greater capacity will be required to service chemical commodity trades. However, as is often the case, opportunity does not come without risk. From the employment of new and potentially unfamiliar contractors, to entering contracts with what may be new shippers, operators will likely - and in some cases unwittingly - expose themselves to operational and commercial risks. As the market grows, and it becomes viable to do so, many operators are also likely to open new autonomous depots, which can also have potential risks in what may be an unfamiliar economic, business and legal environment.

Risk identification

Whilst the frequency of claims generally is low, analysis of TT Club's records evidences the common errors and misconceptions which can result in the deterioration or total loss of the cargo and damage to the tank container.

As basic good practice, TT Club recommends that robust selection criteria is developed, particularly when it comes to the employment of sub-contractors whether they be haulage contractors, tank cleaning and heating stations or repair facilities. Due diligence should be performed to verify the validity of the company, their credentials, their financial viability.

Their insurance cover and, where possible, references to verify their expertise should be considered. Where appropriate and possible, training records should be requested and viewed to evidence their expertise, especially in tank container usage and operation. The development of an approved contractor list should also be a priority as a means of mitigating potential risks and maximising safety in the transport of tank containers and chemicals in dry vans.

It is also important to know your customer. The Club has had experience where low-grade chemicals were mis-sold as higher-grade products, leading to rejection of the cargo by the consignee as being out of specification. While in essence a sales contract issue, the logistics operator can be exposed to significant storage costs while the dispute between seller and buyer is resolved, frequently tying up large numbers of tank containers for several months. In one instance this was compounded when, after several months, it was discovered that the low-grade material had solidified and had begun to attack the integrity of the tank container, resulting in deep pitting to the steel shell and rendering the tanks as total losses.

Risks can become enlarged when companies move into unfamiliar operational territories, it is essential for them to achieve a full appreciation of the prevailing market conditions, general business culture and expectations from local parties such as enforcement agencies. Since local economic and business ethics may differ, a local partner or agent could prove invaluable in providing assistance and expertise. Such collaborations may also offer broader business opportunities and help operators establish themselves in a new region more rapidly.

Risk mitigation

Cargo contamination has proved one of the bigger causes of significant claims. Whilst there are a number of potential causes, an area of focus is the sufficiency of cleaning of the unit following discharge of cargo.

In order to avoid such issues, it is imperative to ensure that the last carried cargo is fully removed from the tank container before the next cargo is loaded. Effective cleaning after each carried consignment is therefore of paramount importance.

The transport of certain products may require additional internal cleaning, including removal of valves and changing of contaminated seals and gaskets, to prevent contamination of the next cargo. As part of the pre-trip inspection, the cleanliness of the tank container should be checked to ensure that it meets the requirement of the shipper, especially where some prior cargoes are banned or the cargo to be transported has particular sensitivities.

The availability of a suitable cleaning station should be taken into account prior to a cargo being accepted for transport; certain cargoes may not be able to be processed. The risks inherent in transporting the tank container in 'empty/dirty' condition to a location where there is a suitable cleaning station also need to be assessed.

Apart from identifying a competent cleaning station, successful cleaning will require complete and informative instructions, such as:

- Full identification of the last carried commodity.
- Complete and accurate cleaning instructions, taking account of future use of the unit.
- Any additional relevant information regarding prior carried cargoes.

The operator additionally needs to heed expert recommendations from the cleaning station.

Certain types of tank container can give rise to additional challenges for the cleaning process. For example, units fitted with surge/baffle plates have a greater surface area to clean due to the additional internal structure and the areas where the baffle plates are fixed present particular challenges.

Bodily injuries

Injuries to those working with tank containers are thankfully few in number but, when they occur, they can have serious consequences and are naturally the primary concern of all operators in terms of risk avoidance.

Incidents fall into two major categories:

- The risks associated with confined spaces for those working inside the tank barrel can be high if the correct equipment is not available or used, and confined entry permit procedures are not strictly followed. TT Club has published a StopLoss advisory on this subject entitled 'Confined Spaces: Managing the risk of entering cargo transport tanks'[2].

- Another potential bodily injury risk exposure is working at height. There is the need to work on top of the tank container for a variety of reasons. Where work is carried out at height, robust procedures should be in place, and followed, to ensure that personnel are sufficiently protected and not able to fall. All stakeholders must comply with the applicable regulations where working at height is concerned, recognising that there will likely be national and regional variations.

Checklist

In order to guide the operator through the risk profile of tank container transport and handling, TT Club has provided a recent up-date to its StopLoss publication, 'Tank Containers: Managing risk in the tank container supply chain'[3].

This Thirteen Point Checklist from the document serves to emphasise important actions that can be taken to avoid loss.

1. Has the cargo to be shipped been clearly identified and correctly classified - do I have a current and fully completed SDS?
2. Have any special requirements/ instructions been adequately considered and communicated?
3. If required to do so, do I have sufficient information to complete the Dangerous Goods Declaration?
4. Is the selected tank appropriate for the cargo to be carried (see tank instructions)?
5. Has the pre-trip inspection been successfully completed?
6. Is a valid cleaning certificate available for the tank?
7. Is the last cargo transported in the tank compliant with the shipper's requirements?
8. Are the components of the tank to be used in good condition and compatible with the cargo to be shipped?
9. Is the volume of cargo suitable to avoid over or under filling and within the weight limits for the entire journey?
10. Has the shipper provided instructions and have these been passed accurately to all stakeholders through the intended transport chain?
11. Upon completion of filling have the valves and fittings been correctly closed and seals applied?
12. Has a transport plan been considered, including any applicable national restrictions for the entire journey?
13. Are the correct placard and markings in place?

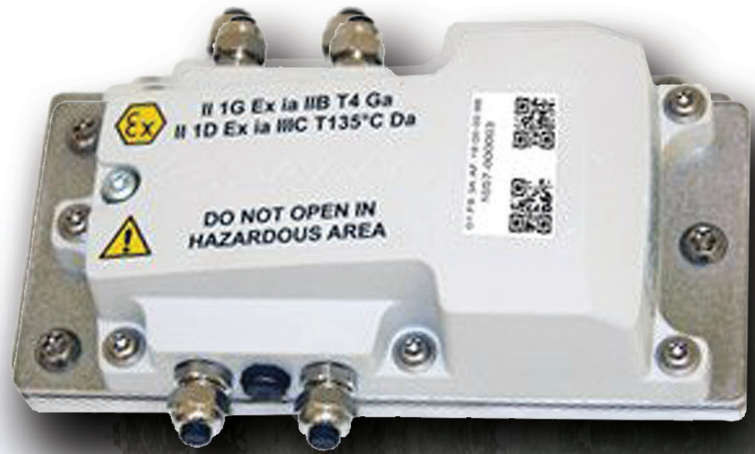
Mike Yarwood

Mike is the Managing Director for TT Club's Loss Prevention Department. He joined TT Club in 2010 as a Claims Executive providing advice to transport operator Members globally, having previously held operation management roles within the logistics industry for 13 years. Previous roles incorporated full responsibility in terms of budget, legislative, operational and health and safety compliance, including being the nominated dangerous goods safety advisor.

Mike is a Chartered Fellow of the Institute of Logistics and Transport, a Technical Specialist Member of the Institute of Risk Management and a Member of the Chartered Insurance Institute. He continues to develop strategic relationships with key trade organisations, including being a co-opted Member of FIATA's advisory body legal matters group.

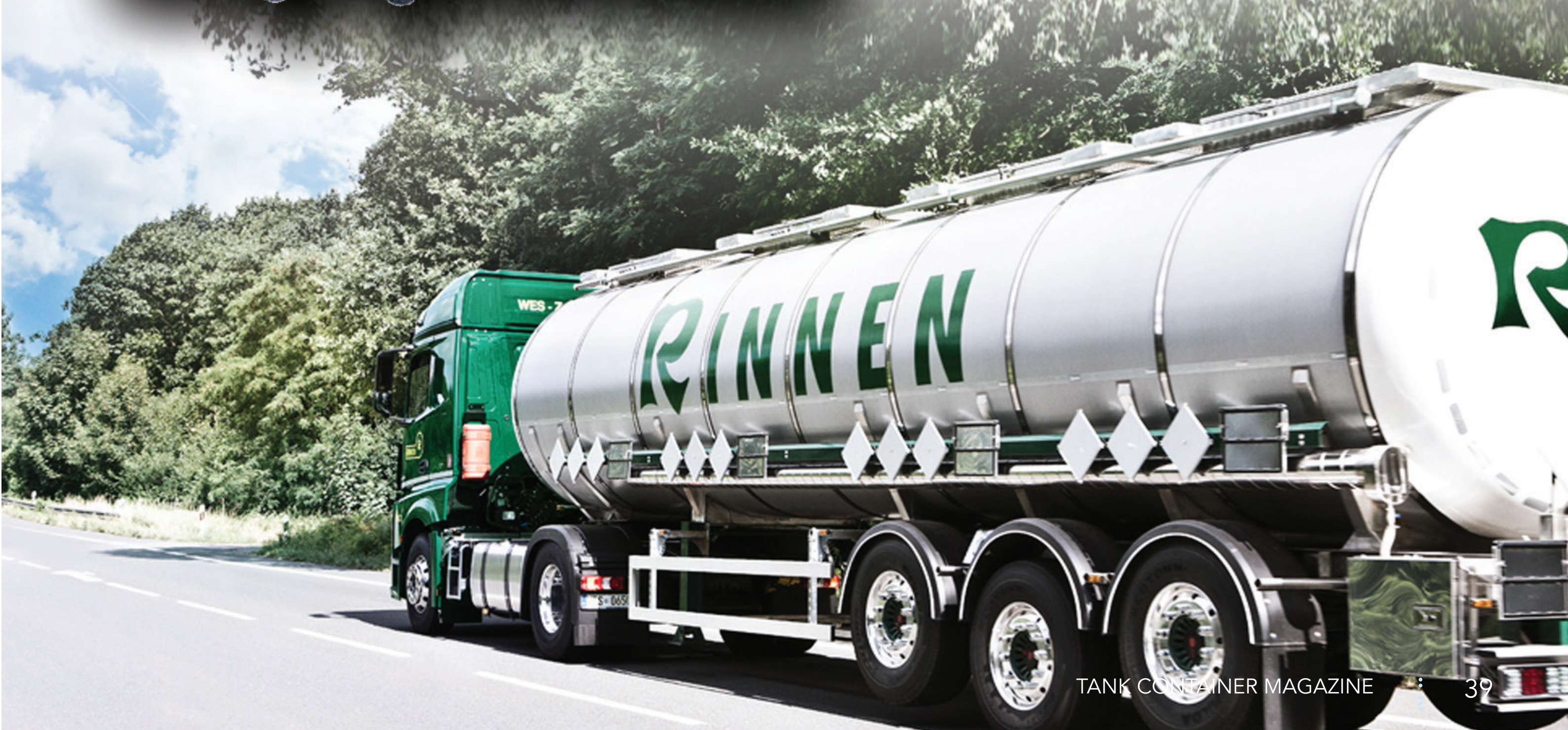
RINNEN *relies on SAVVY*

Logistics expert RINNEN relies on SAVVY® Telematic Systems for its temperature-controlled transports



Shipping liquid goods that have to be maintained at a certain temperature are a logistics challenge. To monitor temperature-controlled shipments, logistics companies use transport telematics which use sensors to continuously measure the temperature of the liquid goods. If there is a critical deviation, drivers receive an alarm notification by radio and can respond accordingly. Transport specialist RINNEN has now gained an even more precise overview of its liquid goods thanks to an innovative SAVVY® Telematic Systems solution.

RINNEN, a family-owned company, was established in 1943 in Duisburg, Germany. Since the 1970s, the company has been focused on the shipment of liquid bulk goods in tank containers. The logistics company employs about 750 people and has a network of locations across Europe. ➔



Th company always strives to continue to optimise its services for its customers, which include global chemical players. This is why the company wanted a better solution for temperature control. Previously, it used sensors installed on the outside of its tank containers but these measurements were imprecise because of transmission losses due to the casing. In particular, it was impossible to obtain exact measurement results for products whose temperature deviates only slightly from outside temperatures.

Measuring temperatures directly inside tanks

Each liquid has a temperature range that it must neither fall below nor exceed, for example from 18 to 40 degrees Celsius. RINNEN wanted to provide the highest possible degree of shipment safety to its customers even for products with a narrow temperature range so SAVVY Telematic Systems has provided a solution that does exactly that.

"We have developed a device that measures the temperature inside the tank", explains Bernhard Weiland, Key Account Manager for the Swiss telematics provider. "A replaceable thermowell with a PT 1000 sensor is inserted into the tank from the top. The sensor is only separated from the liquid by the tube fitting, thereby providing exact measurements."

The sensor is connected to the SAVVY Sense Gateway-ExR, an ATEX-certified telematics unit installed on the top of the tank container. The Gateway device communicates via radio with the CargoTrac base unit with the unit sending data to the SAVVY Synergy Enterprise Portal.

The web-based platform enables the RINNEN fleet management team to maintain an overview of all transport variables such as current location, temperature, pressure, and container fill level at all times.

Realistic arrival time estimates

SAVVY also provides RINNEN with a seamless track-and-trace solution, making it possible to determine the estimated time of arrival (ETA). Up to now, ETA was calculated and displayed using a telematics system in its own vehicles. The downside was that it was not possible to maintain an overview in the case of combined shipments.

A replaceable thermowell with a PT 1000 sensor is inserted into the tank. The sensor is separated from the liquid by the tube fitting, providing exact measurements.

Bernhard Weiland, SAVVY Telematic Systems

"We were able to provide a realistic ETA for the initial and final legs by truck but not during the main leg via rail, inland waterway or sea", explains Oliver Brucks, Head of Vehicle Fleet Management at RINNEN. "SAVVY has enabled us to close this gap. Every 15 minutes, the Cargo-Trac units on the tank containers send out their GPS position to the Synergy Portal, which then calculates the current ETA. This way, we can provide our customers with current data when they need to plan their delivery, regardless of whether the containers are located on our trucks or are being shipped with one of our freight partners."

In the chemical industry, ETA is a key variable. Just-in-time systems are used widely in many production processes, which is why seamless supply chain coordination is essential.

Exact measurement values for highest safety levels

In a pilot project, RINNEN and SAVVY are working together to determine fill levels even more reliably. To determine if a tank container is full or empty, the logistics company currently relies on on-site data. The ERP system assigns the status "full" or "empty" to a container when it passes through, or arrives, at certain geographical positions, such as a trans-shipment point, a border crossing or a final destination. The status changes to "empty" as soon as a tank container leaves the point of interest (POI) such as "Factory Customer XY".

However, imprecise information concerning fill levels cannot be completely ruled out with this method because the rules cannot cover all possible POIs. An innovative solution would ensure a higher degree of precision: instead of deriving the fill levels indirectly from the position data, sensors detect even the smallest deformations in the container reinforcement struts - a reliable indicator of the container's fill level.

In addition, other influencing factors are included that could otherwise distort the results if they are not considered. The two companies are developing an algorithm which generates a robust value taking into consideration different factors in order to reliably calculate fill levels. With this method RINNEN wants to further increase transport safety.

Thanks to the telematic data, the forwarding company has transport statuses constantly under control. If the data deviates from the target values, the software automatically sends alarm notifications to enable drivers and fleet managers to respond immediately. Drivers are connected by tablet with the Synergy Portal, while the managing clerks have access via a web-browser on their desktop PC. The alarms can be configured so that designated persons receive email notifications. Others are notified if the first group of people cannot be reached.

Collaboration platform creates transparency

"Our customers need a comprehensive and precise overview of the status of their shipments at all times", says Oliver Brucks. "We can now meet these expectations even better. For both temperature and ETA, we have been able to significantly improve the precision and data accessibility thanks to SAVVY."

In this context, the SAVVY Synergy Portal serves as a collaboration platform. With the aid of this tool, RINNEN can allow customers who so desire to gain direct access to the telematic data. They receive a common user access to simply log on to the portal. At one glance, they can see the current position of the shipments and the estimated arrival time on a map. Data concerning temperature, fill stand etc. are also shown in real-time.

"The customers that already use the portal are delighted", says Oliver Brucks. "They not only have the benefit of increased transport safety but also improved track-and-tracing. If customs clearance takes longer than usual and delivery is delayed, they know that immediately and can adjust their production plans accordingly. Thanks to the collaboration with SAVVY, a competent and innovative partner, we have added true value for supply-chain-management." ■

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tank containers as safe, cost-efficient
and flexible means of transport.

In doing so, the organisation has a strong focus on enhancing technological and business developments for the sake of quality, health, safety, environment, and Corporate Responsibility in the tank container industry.

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