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Tankcontainer MAGAZINE

Tank container operator
Crossover is one of several
Asian small-to-medium sized
operators who have the
ambitions and capabilities
to become global leaders.

Crossover's vision: be a global leader

Volume 10 | Issue 3 | September 2023

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Crossover's vision: be a global leader

Tankcontainer Magazine talks to Bob Breekweg, Regional Director of Crossover Logistics (Europe) B.V., about the company and its positioning for a larger global presence.

Is today's depot storage tightness structural or temporary?

Cleaner fish demonstrate a specialist feeding strategy by providing a service to other fish species - referred to as clients which removes dead skin, ectoparasites and infected tissue from their client's surface and gill chambers.



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Zai Khan Advertising zaikhan@btinternet.com

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

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NEWS



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DEPOTS



Is growth outpacing essential infrastructure?

Could this limit the growth of tank container usage

OPERATOR



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SERVICE



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A winning combination

Quality, care and customer satisfaction pay off for Turkey's TET Global Logistics.

OPERATOR



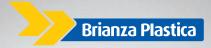
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Is today's depot storage tightness structural or temporary?

Cleaner fish demonstrate a specialist feeding strategy by providing a service to other fish species - referred to as clients - which removes dead skin, ectoparasites and infected tissue from their client's surface and gill chambers.

This example of cleaning symbiosis is said to represent mutually-dependent and cooperative behaviour, an ecological interaction that benefits both parties involved.

As for cleaner fish, so too for tank container depots, except that instead of a vital, supportive ecological interaction, tank container depots and cleaning stations provide a vital, supportive *economic* interaction.

But all is not well in the under-valued, unglamorous and low profile tank container depot sector. Several of the leading tank container operators and lessors are concerned about the **acute lack of storage**, especially for laden tanks, at some of the key global tank container hubs. This is creating bottlenecks for cleaning stations, restricting vital Maintenance & Repair work and leading to expensive storage 'work-arounds'.

A common view is that the investment in the infrastructure support on which the tank container industry depends - including depot storage and cleaning stations - has not kept pace with the rapid growth in the global fleet. The problem began to emerge in the second half of 2022, when chemical industry demand faltered. Continuing weak market fundamentals, and low utilisation in an over-bought fleet, have since put **unprecedented demand** on the industry's tank container storage capacity.

There is genuine concern among leading stakeholders in the industry that if this lack of depot availability is structural, rather than transitory, the rate of tank container **growth may be constrained** and the operating costs for lessors and operators - for whom depot costs are a significant cost component - will escalate, making tank containers a less attractive transport option.

In this issue of *Tankcontainer Magazine*, we publish the **first publicly-available** qualitative **assessment** of the global tank container depot market (Page 20). We analyse the causes of the storage problem, identify where its impact is most acutely being felt and report the industry's consensus on whether or not the problem is temporary or structural.

In December's issue, we consider the consequences of today's tank container storage tightness, ask whether the **investment returns** support new depots and discuss how tank container storage capacity can be increased. We will also explore the impact on

the depot/cleaning sector of the recent M&A activity by global investment giant KKR - which backed Boasso's merger with Quala (and their subsequent acquisition of MTC in the Netherlands) - and assess which operators and lessors might invest more in depot and cleaning station facilities.

Elsewhere in the market, Apollo Global Management will be acquiring a stake in Houston-based Intermodal Tank Transport (ITT), the largest tank container operator in the US, having completed its acquisition of Univar, the world's third largest chemical distributor, in August. Canadian asset manager Brookfield is acquiring **Triton**, the world's largest lessor of intermodal freight containers (including its fleet of 12,156 TAL tank containers) for \$4.7 billion.

As **consolidation** changes the previously fragmented depot and cleaning station service sector, so too has the complexion of the operator, lessor and manufacturing sectors altered. The ownership of the companies making up the tank container industry is becoming more polarised around three groups: family-owned companies, private equity and Chinese companies. Corporates now account for only a small segment of the market but South East Asian companies will soon have a greater stake.

Each of the three groups brings its respective strengths to play in the sectors they dominate. Asset managers dominate in the tank container leasing sector because of their access to low cost capital and their need to invest in a diversified portfolio of assets. The weighted average cost of capital and, arguably, a lessor's chosen depreciation policy, define a lessor's financial performance. At the most fundamental level, returns are based on the net spread between the cost of capital and operating costs.

The move of global asset managers (Apollo) into the top operator echelon (ITT) is unusual. Other operators - including mid-sized Asian operators - were interested in acquiring a stake in ITT but geopolitical concerns and valuation expectations caused some to refocus elsewhere.

More broadly, the operator sector is still mainly dominated by European family companies, rooted in decades of inter-generational expertise and relationships in the original 'home' region of tank containers (although practically all are now 'born' in China).

As a young man called Socrates said in Athens nearly 2,500 years ago: "The secret of change is to focus all of your energy not on fighting the old, but on building the new". Some are better at it than others.

Leslie McCune, Editor



"Make It Happen"

CROSSOVER Group - a leading tank container operator.

At Crossover Group, we pride ourselves on our team of highly motivated individuals who are dedicated to providing quality service and the very best customer experience. Our passion lies in learning and researching, we are always up-to-date on the latest trends, technologies, and best practices.



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Bayarea Terminals invest in state-of-the -art cleaning system from Gröninger Cleaning Systems B.V.

Bayarea Terminals LLP is excited to share the news of their latest installation at their Kandla depot in India. They have recently invested in a state-of-the-art cleaning system from Gröninger Cleaning Systems B.V. This cutting-edge technology allows them to provide their clients with the most efficient and automated cleaning solution for ISO tank containers and road tankers in the country.

With this new system in place, they can guarantee the fastest turn-around times for cleaning and sanitising tank containers and road tankers. The advanced features of the Gröninger cleaning system ensure thorough and effective cleaning, meeting the highest industry standards.

At Bayarea Terminals, they are committed to providing top-notch services to their clients. This latest investment is a testament to their dedication to staying at the forefront of industry advancements and offering the best possible solutions to their customers.

Bayarea Terminals are confident that the addition of the Gröninger cleaning system will greatly benefit their clients in terms of efficiency, reliability, and overall customer satisfaction. They look forward to serving their clients with this enhanced cleaning capability at their Kandla depot.



Peacock's sustainabilitylinked loan wins 'Transport Deal of the Year 2023'

Peacock Container, a leading global tank container lessor, is delighted to announce that the conversion of its senior secured finance facility to a sustainability-linked loan has been recognised as Transport Deal of the Year (ASEAN) by The Asset Triple A Sustainable Infrastructure Awards 2023.

In March 2022, Peacock amended its group finance facility to introduce specific sustainability terms advised and arranged by Sustainability Coordinator ING Bank N.V., Singapore Branch, which link the borrowers' cost of finance to its EcoVadis ESG scorecard. The group went on to achieve an EcoVadis gold rating in January 2023, placing Peacock among the top 5 percent of rated companies for its progress in managing environmental issues, labour and human rights, governance and sustainable procurement in its business.

Peacock's CFO Charles-Hadrien Lassalle commented: "Our sustainability-linked finance facility – further increased and extended by approximately 40 percent with the introduction of two new lenders (Keybank N.A. & Credit Industriel & Commercial Singapore Branch) in November 2022 – provides a sound platform for us to continue to grow our fleet sustainably. We appreciate this endorsement of our approach and the encouragement it gives to existing and potential providers of sustainable finance in this sector."



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Stolt Tank Containers launches 'Moving towards a Sustainable Future' programme



Stolt Tank Containers, a leading tank container operator, has recently launched its 'Moving towards a Sustainable Future' programme, demonstrating its commitment to sustainability and addressing key areas aligned with the UN Sustainable Development Goals. The programme focuses on climate action, clean water and sanitation, life on land, gender equality, and good health.

One of the key aspects of Stolt Tank Containers' sustainability efforts is ensuring safety for both people and the environment. The company prioritises the well-being of its employees and the communities in which it operates. With a strong emphasis on ethical, honest, and legal practices, Stolt Tank Containers strives to achieve its business objectives while upholding high standards of integrity.

In line with its sustainability goals, Stolt Tank Containers has incorporated sustainability requirements into its invitations to tender for ocean freight. These requirements are based on guidelines from the Smart Freight Centre and the Clean Cargo Working Group. Notably, Stolt Tank Containers is proud to be the only tank container operator that is a member of this working group, which is dedicated to reducing the environmental impact of global goods transportation and promoting responsible shipping.

Under its sustainable transportation initiatives, Stolt Tank Containers has partnered with carriers that operate greener alternatives using cleaner energy sources such as biofuel or LNG. For customers who still require conventional fuelbased transportation, Stolt Tank Containers also provides carbon offsetting solutions to mitigate the environmental impact.

The company has made significant progress in reducing its greenhouse gas emissions. It has achieved a 4.5 percent decrease in Scope 1 emissions, primarily through the adoption of greener gas and carbon offsetting. Additionally, Stolt Tank Containers has achieved a 39.5 percent reduction in Scope 2 emissions through electricity and fuel-related reductions. The company aims to further invest in greener solutions to achieve its sustainability ambition of utilising 50 percent renewable energy at its fully-owned depots by 2030.

Stolt Tank Containers is also committed to sustainable depot operations. In 2022, the company completed its first full year of measuring its own GHG emissions at its fully-owned depots. This enables the establishment of a clear baseline for measuring progress. To reduce emissions, Stolt Tank Containers has implemented targeted reduction initiatives, primarily focusing on incorporating greener fuel sources.

For example, its Moerdijk depot in the Netherlands now utilises certified wind energy and certified biofuels. Similarly, the Houston depot in the US has started purchasing certified green electricity and utilising wind and solar power. In Singapore, the company has transitioned from diesel to natural gas for heating.

In addition to its commitment to sustainability, Stolt Tank Containers prioritises strong ethics, good corporate governance, and the support of internationally proclaimed human rights. The company prohibits child labour and actively promotes diversity in the workplace.

To ensure the effective implementation of its sustainability initiatives, Stolt Tank Containers maintains a global safety and quality management system. The company also sets clear sustainability-related Key Performance Indicators (KPIs) to monitor progress. Stolt Tank Containers conducts regular audits of its supply chain to ensure compliance, while also subjecting itself to audits by third parties.

Overall, Stolt Tank Containers'
'Moving towards a Sustainable Future'
programme reflects its dedication
to environmental responsibility,
employee welfare, and ethical
business practices. By partnering
with greener carriers, reducing
greenhouse gas emissions, and
promoting sustainability throughout
its operations, Stolt Tank Containers
is making significant strides towards a
more sustainable future.



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SPS Mumbai becomes first solar-powered depot



SPS Mumbai depot in India has become Stolt Tank Containers' first facility to adopt full solar energy. The depot's tropical location, which benefits from 9-10 months of sunshine per year, presented a perfect opportunity to go greener via this renewable resource. This switch is expected to make the depot electricity-neutral, while significantly reducing ongoing electricity costs.

Largely self-sufficient

Mono PERC solar panels covering the depot's roof are capable of generating 170 kWp, which is converted into AC via two Growatt inverters. This is enough to fully power every piece of depot equipment at any given moment. Given that it's rare for all equipment to be in use at the same time, the installation generates more power than the depot uses, and the excess is fed back into the local grid. A bidirectional meter measures both this and the amount drawn from the grid at times when solar generation isn't sufficient.

Advantages for the local community and the planet

Now that SPS Mumbai has largely switched from drawing from the grid to contributing to it, the surrounding community can benefit from a more reliable electricity supply. At the same time, Stolt Tank Containers has reduced its dependency on coal-fired electricity, reducing carbon emissions

by around 10-15 tonnes per month, a 46 percent reduction of emissions at the location

The beginning of a new age

The official coming-into-service of the new solar installation was marked with a ribbon cutting and traditional local blessing where coconuts are broken for good luck.

"We have committed ourselves: 50 percent of the energy used in our depots in 2030 will originate from carbon-neutral renewable sources. The use of solar energy for the production of electrical and thermal energy is a crucial technology to meet our sustainable goals," says Dennis Verduyn, global depots director at Stolt Tank Containers.

Strategic alliance Daelim and Den Hartogh



Daelim Co., Ltd. has recently signed a Memorandum of Understanding with Royal Den Hartogh Logistics to establish a Strategic Alliance.

Both companies seek to jointly explore resources and networks to achieve synergies which enhance operational efficiency as well as new business opportunities. This milestone marks a significant step in our future collaboration not only in ISO Tank logistics services but also worldwide chemical supply chain solutions.

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Dow Chemical awards Den Hartogh with gold

Dow Chemical Europe awarded Den Hartogh the European Gold Award for the contribution the company has made towards supply chain excellence in the four pillars of the Dow 4STAR programme safety, sustainability, social responsibility and service. The Den Hartogh team is extremely proud to receive the highest rating of this key customer.

All achievements and initiatives of the past year related to the pillars are considered to determine the ranking. These core values are part of the 4STAR programme, which Dow has established to encourage partners to improve the supply chain. "We are increasingly able to connect with our key customers at a tactical and strategic level to resolve their supply chain challenges together, and our capacity planning is more organised than ever. The ability to predict supply and demand prevents a shortage

of tank containers and increases customer satisfaction", says Manon Cremers, key account manager at Royal Den Hartogh Logistics.

Niek Seesink, contract manager at Den Hartogh Liquid Logistics: "We have succeeded thanks to great teamwork. Hereby a big thank you to you all in providing operational excellence towards this customer. We feel proud and determined to continue the good work and excellent services."



We have succeeded thanks to great teamwork. Hereby a big thank you to you all in providing operational excellence towards this customer. We feel proud and determined to continue the good work and excellent services.

Niek Seesink, contract manager Den Hartogh Liquid Logistics

Martijn van Konijnenburg joins Peacock Container as technical manager Europe

Peacock Container, a global leader in iso tank leasing, are pleased to announce the appointment of Martijn van Konijnenburg as the technical manager Europe, effective from June 1, 2023.



Martijn brings with him over 20 years of invaluable experience in ISO tank repair and maintenance, making him a valuable addition to the Peacock Container team. Previously, he

worked for a leading Classification Society, where he gained extensive knowledge and expertise in the industry.

In his new role, Martijn will play a crucial role in driving technical operations and overseeing the maintenance, repair, and inspection services provided by Peacock Container throughout Europe. His deep understanding of ISO tank standards and regulations will ensure that Peacock Container continues to deliver the highest level of quality and compliance to its customers.

"We are delighted to welcome Martijn van Konijnenburg to our team," said Jesse Vermeijden, CEO of Peacock Container. "His extensive experience and expertise will undoubtedly add significant value to our business. Martijn's technical knowledge will further strengthen our position as a trusted partner in the ISO tank container industry."

"I am excited to join Peacock Container and be part of their esteemed team," said Martijn van Konijnenburg. "I look forward to leveraging my experience and knowledge to contribute to the company's success and maintain its reputation as a leader in ISO tank container solutions".

Annual Production 12000 TK





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- Gas tank
- Food grade tank
- Electrical tank
- Reefer tank
- Baffle tank
- Hydrogen peroxide tank
- Metallic Sodium tanks
- IBC/SBC tank
- T20/T22 tank

02

Service

Global service network

03

R&D

- ASME U&U2, C3, LR, BV, CCS, RMRS, DNV certifications
- 300+ patent
- 350+ engineers



Nantong Tank Container Co., Ltd

Established in May, 2007, NANTONG TANK CONTAINER CO., LTD (NTtank) is a professional ISO tank container manufacturer located in Nantong, Jiangsu, China, close to Shanghai.

NTtank supplies both standard ISO UN Portable tanks and customized special tanks, with annual capacity of 8,000 standard ISO tanks and 4,000 multi-type special tanks, like SWAP Tanks, Reefer Tanks, Electrical Heated tanks, Different lining tanks (rubber, PE, Teflon, Chemline, Saekaphen, etc.), AHF acid tanks, Hydrogen peroxide tanks, Metallic Sodium tanks, High purity ammonia tanks, T20/T22 tanks, T50 gas tanks (ASME U and U2 stamp), offshore tanks and other small pressurized / none pressurized IBC for liquid products transportation.

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Trifleet Leasing iconducts successful trials of IMT's advanced digital level sensor

Trifleet Leasing, a renowned global leasing company with over 30 years of experience, recently conducted successful trials of IMT's advanced digital level sensor, the Rochester Level Sensor (RL22-Ex), for their fleet of liquid tank containers. This collaboration stems from Trifleet's commitment to providing up-to-date telematics solutions to their leasing customers, aligning with their leasing excellence philosophy and vision on safety in transports.

IMT's digital level sensing solution, the Rochester Level Sensor (RL22-Ex), is a state-of-the-art sensor that seamlessly integrates with a third-party, compatible Level Gauge. Together, they create a powerful digital level sensing solution specifically designed for liquid tank containers. The main objective of this sensor solution is to provide precise and accurate monitoring of the liquid level inside the tank container.

The key features of IMT's digital level sensor, the RL22-Ex, include a wide level range of 5 percent to 95 percent, ensuring precise monitoring across various liquid quantities. The sensor's firmware can be wirelessly updated through OTA firmware updates, keeping it up-to-date with the latest advancements and enhancements. Additionally, the sensor is ATEX IIC certified, prioritising safety by making it suitable for transporting both hazardous and non-hazardous products in all sectors. With a battery life span of 10 years, the sensor offers reliability and longevity to meet longterm monitoring needs.

Trifleet Leasing takes pride in its fleet of over 22,000 tank containers dedicated to chemical and food grade liquids. By incorporating IMT's sensor-driven telematics capabilities, Trifleet aims to empower their customers to monitor crucial physical parameters of their cargo, providing reassurance for shippers.

The integration of IMT's new telematics solution, equipped with digital level sensing technology, signifies Trifleet's commitment to innovation and exceptional customer service. This solution allows lessees of tank containers to remotely monitor the liquid level of their products throughout the lease duration. Customers have the flexibility to set their own alert thresholds, enabling timely action if any anomalies are detected.

Furthermore, Trifleet's customers can remotely monitor their leased fleet once it leaves the depot, thanks to a range of telemetry solutions.

Mr. Edwin Wullems, Trifleet's global manager cryogenics, expressed his

enthusiasm for IMT's telematics, stating that it enables customers to monitor key physical parameters of (hazardous) cargo using state-of-the-art sensors and telemetry. By incorporating the new digital level sensing solution, Trifleet continues to innovate and enhance their advanced sensor-driven telematics capabilities, raising customer service levels.

Trifleet Leasing is proud to collaborate with IMT, a forward-thinking and environmentally conscious partner that supports their mission to provide complete packaging solutions for the intermodal transport of chemical and food grade liquids. Through the utilisation of IMT's telematics solutions, Trifleet is pushing the boundaries of technology and sustainability, revolutionising the monitoring and management of liquid tank containers.

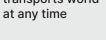


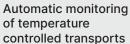






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CS Leasing appoints Joshua Shen as marketing manager

CS Leasing, a provider of a wide range of intermodal lease and equipment solutions to global operators, shippers and logistics providers, is proud to announce the appointment of Joshua Shen as marketing manager for China and East Asia.



A seasoned industry specialist with over 15 years of experience in container manufacturing and marketing, Joshua will support the expansion of CS Leasing's business throughout Asia by utilising his industry expertise and global network.

Based in China, Joshua brings with him a track record of excellent customer service and market development in the container industry. Most recently, Joshua worked as a senior overseas sales manager for CIMC Nantong Special.

"The CS Leasing team have known Joshua for many years, working closely with him on various specialised and standard container projects during his time with CIMC Nantong. Joshua has proven himself to be very knowledgeable on all intermodal container types while delivering excellent customer service through his extensive global network. Joshua's passion for long-term partnerships with customers and vendors fit well with CS Leasing's culture" remarked Makoto Nose, vice president - Asia at CS Leasing. "We are excited to welcome Joshua to the CS Leasing team as we continue to grow in China and beyond."

As CS Leasing expands it's presence in Asia, this latest addition affords new and existing customers enhanced equipment leasing and procurement support for their local and global operations with a diverse portfolio of container equipment, finance, and lease products.

Formed by a management team with many decades of experience in the design, procurement, financing, supply and operation of intermodal

containers, CS Leasing has built a diversified fleet of high-quality equipment during its first 7 years of operation, with a particular emphasis on tank containers and dry freight specials. With over 30,000 owned ISO Tanks and 20,000 dry freight special units, the company is ranked as a top 5 lessor in the 2023 Global Tank Container Survey published by ITCO, the International Tank Container Organisation.

For more information visit www.cslintermodal.com 9th June 2023



We are excited to welcome Joshua to the CS Leasing team as we continue to grow in China and beyond.







Tank container operator Crossover is one of several Asian small-to-medium sized operators who have the ambitions and capabilities to become global leaders. *Tankcontainer Magazine* talks to Bob Breekweg, Regional Director of Crossover Logistics (Europe) B.V., about the company and its positioning for a larger global presence.

TCM: What is Crossover's story?

BB: Crossover Group was founded as a tank asset management company in Suzhou, China in 2014 by Mr. Asia Wang. The headquarters moved to Singapore a few years later to begin its global expansion.

Today, the Crossover Group is a tank container company with offices all over the world. With our highly qualified and experienced staff we want to establish sustainable growth in the tank container industry. The vision of our CEO, Mr. Asia Wang, is to become one of the largest tank operators in the world and we are gradually realising this.

TCM: What is Crossover's fleet and tank types?

BB: At the moment we have a fleet of approximately 8,000 T11 tank containers and 300 T50s. As we are a young company, 50% of our fleet is less than 5 years old. The target for 2023 is to have a fleet of 9,000-10,000 tank containers.

TCM: Does Crossover offer swap bodies and/or T75 cryogenic tank containers?

BB: Not at the moment - our core business is the deep sea transport of chemical liquids. We are always looking at the potential of our customers, so we can serve their needs better. We are, for example, trying to focus more on the food grade industry.

TCM: What is Crossover's global presence?

BB: Our headquarters are in Singapore which is supported by regional offices in strategic locations i.e. Suzhou, China; Dubai (UAE); Istanbul (Turkey; Rotterdam (the Netherlands); and Houston (US). The regional offices are likewise supported by branch offices in Malaysia, Korea, India, Spain and the UK, with more to follow.

TCM: What is the busiest trade lane?

BB: As a Singapore-based company, our core business is intra-Asia traffic but all our customers have business globally. This is why we are setting up regional and branch offices worldwide, in order to serve our customers better. A spin-off of this structure is that we are particularly strong at managing imports into the Far East, China, India and the Middle East from anywhere in the world.

TCM: How does Crossover truly differentiate itself from competitors?

BB: Through flexibility and service, but that is the standard answer. Our mentality is to keep things simple; that is the hardest thing to do in life. The main difference is that we think as a tank container owner, which means that moving tanks is our core business. These can move with or without logistics services, meaning we are truly flexible.

With our experienced and qualified staff, we are capable of thinking about solutions instead of problems. That's why I think our people are the most important asset of the company.

We want to create more reliability, privacy and safety for our customers, leading to another point of differentiation cyber security. Crossover has obtained the ISO27001 certificate, demonstrating that we care a lot about cyber security and privacy. Nowadays, this is a very important topic for our customers and it will become more so in the future. We are the only tank operator which has achieved this certificate, so far as I know.

TCM: Will Crossover continue to be a relatively small-scale operator or will its size increase?

BB: The answer is clear - we will increase our size. We have set up offices in all the key strategic regional locations and we are now working on other interesting areas. This is designed to expand our presence globally and expand our reach.

Cover Interview

TCM: To what extent does Crossover move food grade products?

BB: We are currently developing this segment and our goal is to have 10% of our fleet suitable for food grade products. As many of our units are new builds, we are able to move a lot of food grade products at the start.

TCM: Does the fleet offer 'smart' telematics?

BB: Not at the moment as this is not our priority. Monitoring our units is done by our dedicated staff, who follow the tanks closely.

TCM: What are the most difficult cargoes to carry?

BB: All chemicals are difficult to transport in their own way as each product has its own requirements and needs to be handled with care.

TCM: To what degree are shipments seasonal?

BB: We always have to deal with the global economy and product seasonality is part of the bigger picture, which includes geolocations, country structures, politics, etc. These factors all influence our business but, due to our flexibility and global presence, we see things upfront and we are able to follow the market. As a result, we are capable of having our equipment available for our customers in the right place at the right time.

TCM: Which tank container manufacturers does Crossover buy from?

BB: JJAP and CIMC.

TCM: How does Crossover decide which cleaning stations to use?

BB: Service and quality are our most important criteria but, from a strategic perspective, we try to have at least two depots in every region. Furthermore, we want to be flexible for our customers. The most important thing is that our tank containers are cleaned well and on time so our customers are satisfied.

TCM: Are there always enough depots and cleaning stations available?

BB: The short answer is 'No'. There are not always enough depots and cleaning stations available. Some countries have a lot of restrictions (smell, water management, etc.) but we always try to keep it as easy as possible for our customers to return a unit so we do not make our problem their problem.

TCM: What are the key trends in the tank container market?

BB: At the moment there is a lot of panic in the market due to the economic situation and we see many tank operators looking for other ways to keep the cash flow going, mostly by offering unrealistic, unsustainable rates to keep sustain their cash flow.



Topics such as the environment and social entrepreneurship are getting more and more important for our customers, which is a good development and one in which we want to participate. As well as the ISO and SQAS certificates, we also have the carbon dioxide performance ladder and the MVO (social entrepreneurship) certificate. These are all ways to support this positive trend.

We also want to secure the data of our customers and employees. This is underwritten by the achievement of the ISO27001 certificate.

TCM: What is the tank container market outlook for the next 5 years?

BB: After the economy is restored, we will go back to a normal level again. And I believe it will increase to an even higher level due to several reasons e.g. environment, growth of populations, technical developments and efficiency. Due to growing globalisation, the market will keep growing as the need for products will keep on getting bigger. Tank containers will benefit as they are the cleanest way to transport liquids.

There will also be more worldwide regulations (security, environment, etc) so chemical production will be divided more equally than now. Countries will need to work together better, leading to greater efficiency.

Biography

Bob Breekweg was born and raised in Rotterdam in the Netherlands. Growing up in one of the major ports of Europe, he easily got 'infected' with the shipping virus, as he says, so after graduating with a bachelor's degree in international management, he started working in the shipping industry. He first started working at a shipping line, then at a forwarding company and then at a transport company.

This enabled him to gain an understanding of the various parts of the logistics industry while providing on-the-job training that he still makes use of every day. This expertise is undoubtedly needed in the world of liquid transport, not least because it is very dynamic and nothing is standard. These were the reasons why he specifically made the choice of being a tank operator.

He was approached by Mr. Asia Wang, CEO of Crossover Group, in May 2020 and invited to set up Crossover Logistics Europe B.V., which was one of the first steps Mr. Asia Wang made to realise his dream of becoming a global company. It was a huge honour for Bob to play such a part in realising this vision and he believed in it from the start. The support of his wife and understanding of his children have been a Critical Success Factor for him!





Many tank container players see the infrastructure support on which they depend - including depot storage and cleaning stations - not keeping pace with the rapid growth in the global fleet. Could this potentially limit the growth of tank container usage, questions Leslie McCune, a tank container market expert?

Introduction

Depots and cleaning stations are the oil in the proverbial wheel that is the global tank container industry. They provide a range of essential services, including cleaning and storage, Maintenance and Repair (M&R), statutory pneumatic and hydrostatic testing, cross-loading and on-hire and off-hire surveys for both tank containers and road tankers. Without their under-valued, unglamorous and lower profile contribution, the tank container industry would, quite literally, grind to a halt.

Ironically, these typically smaller-scale businesses hold the key to the profitability of the tank container operators, since finding direct or triangulated return loads - and being clean, empty and ready for them - is one of the key drivers of profitability for operators.

So far, these vital service providers have been broadly taken for granted but, according to Jesse Vermeijden, Managing Director of Peacock Leasing, at some of the key global tank container hubs, an acute shortage of tank container storage has developed, creating bottlenecks for cleaning stations and restricting vital M&R work. A lack of depot storage can limit cleaning throughput.

Many tank container depots - most of which do not have cleaning stations and M&R workshops - are now so full that they have been forced to operate a 'one-out, one-in'

policy. The largest tank container depots in the world are in Antwerp where one depot, which normally stores 2,500 tank containers, is now hosting well over 4,000 units due to low exit volumes.

There is genuine concern among leading stakeholders in the industry that if the lack of depot capacity is structural, rather than transitory, the rate of tank container growth may be constrained and the operating costs for tank container for lessors and operators - for whom depot costs are a significant cost component - will escalate, making tank containers a less attractive transport option.

Is global capacity limited for tank storage and cleaning stations?

Both activities are, of course, related. Suttons International notes that cleaning station availability is hindered by both high throughput and labour shortages, causing depots to prioritise simpler cleanings while more complex tasks are delayed.

The European Federation of Tank Cleaning Organisations (EFTCO) confirms a lack of storage space in those European tank container depots with cleaning and M&R capabilities. The main problem for depots with workshops is the lack of independent surveyors to check-in tank containers for statutory periodic tests.

Harry Pepels, the Director of cotac, a subsidiary and full service depot group supporting Hoyer, also sees overloaded depots, adding: "The higher loading rates on the depots require special attention to optimise storage and picking procedures to keep a continued inflow to the cleaning and repair activities".

However, for dedicated, 'pure play' cleaning stations, EFTCO reports that none of its members have capacity problems in Europe. Environmental legislation, and the difficulty of finding suitable staff, are the main issues currently facing cleaning stations. It says the same problem exists in the US although less so in Asia.

In summary, the **capacity constraints** are **focused** on **tank container storage**, especially for laden tanks; global cleaning capacity seems adequate while M&R availability is also limited in some regions.

Why is there a problem?

A supply/demand imbalance has created the current tightness in tank container storage availability:

i) High demand

The fundamental problem is that demand for tank container depots and storage has grown substantially as the global tank container fleet has increased over the past few years. However, **growth** in the essential **depot and cleaning station infrastructure has lagged behind.**

The global fleet - 801,800 in January 2023, according to ITCO's annual survey - has increased by 45% over the past five years due to the continuing rapid adoption of tank containers and, more recently, the need to buy or lease-in additional equipment to meet the huge supply chain inefficiencies caused by the Covid-19 pandemic. Over the past decade, the compound annual growth rate of the global tank container fleet has been 9%.

During the pandemic, supply chain congestion, vessel capacity limitations and global logistics bottlenecks stretched shipment times, accelerated inventory-building and required far more tank containers than normal to sustain logistics trade flows. A move to 'Just-In-Case' purchasing instead of the more usual 'Just-In-Time' delivery requirements further reduced the availability of tank containers, according to Reg Lee, President of ITCO. As a result, depots became congested with laden tank containers while global tank container fleet utilisation levels increased to close to 80%, 10% above the industry's long term average (today's fleet utilisation level is approximately 65%).

As a consequence of 'super-normal' demand, the volumes of new build tank containers boomed - 2022 production of 67,865 was 14% above the previous record high in 2018 and nearly double that of 2020, when the sudden and dramatic global economic fall-off resulted in a tank container manufacturing collapse. The stalling of the **post-pandemic recovery** led to another significant drop in chemical consumption and an inevitable fall in tank container utilisation, with **depots now more heavily populated** with empty, rather than laden, tank containers.



While demand and utilisation rates remained high up to the middle of last year, depot and yard storage capacity was sufficient - there were always new business opportunities waiting. However, the tightness in the current depot storage market began to emerge as demand from the chemical industry faltered in the **second half of 2022.**

Operators - the largest customers of tank container lessors - recognised they had over-leased and/or over-bought equipment and began returning substantial numbers of tank containers back to lessors while the yards at tank container manufacturers filled with surplus new builds. Fewer movements and lower utilisation levels for leased equipment led to more empty tank containers being stored at depots, squeezing the available capacity, according to Seaco.

Seasonality has also **added pressure** to depots with the summer period typically having lower load counts - more tank containers therefore require storage in depots, says Pepels, Director of Hoyer subsidiary, cotac.

Lower demand pulled prices back to approximately \$18,000 for standard T11s - depending on the specification - with lower prices said to be available on some tank container batches in China as a result of Tianjin-based TISCO reducing their 316L stainless steel prices to counter the wider plate size of South Korean-based POSCO (wider plates imply better quality since fewer weld seams are required, reducing the potential for intergranular corrosion and problematic surface finish).

Improved ocean carrier performance has added to the tank container surplus. The global on-time performance by the container shipping companies has increased by 24 percentage points over the past year, with Maersk achieving 73% in June. With ocean carriers now operating more efficiently, additional containership tonnage opening up with new launchings and land-side congestion easing, demurrage revenues for operators will fall rapidly this year to the more normal 15% level as **tank** containers are returned more quickly (US tank container demurrage levels during the pandemic peaked at \$40-45 a day, triggering a complaint to the Federal Maritime Commission). The accelerated return of equipment has inevitably put further pressure on depot storage space.



Eric Wu, Sales Manager China, Peacock Leasing

Low demand in Europe is causing some operators to abandon the search for backloads to Asia in favour of the direct shipment of empty clean tank containers back to China - at a cost of \$400-500 per tank container - where stronger demand for specialty chemical movements offers better cargo opportunities. This could become a **new operational model**.

Eric Wu, Sales Manager China for Peacock Leasing, runs tank container depots in the major tank container ports of Shanghai (Shanghai TA

Asia Logistics (Shanghai) Co., Ltd) and Qingdao (Qingdao Million Union Tank Container Service Co., Ltd.). "Since May, more and more empty clean or empty dirty tanks have been repositioning into China. My depot in Shanghai is already very full, not helped by export volumes being on the low side. Most of the empty clean tank containers have been repositioned from Europe and the US but many have to be washed again because the local surveyors here in China reject them as not meeting China's cleanness criteria."

ii) Weak supply

On the supply side, **depot and cleaning station capacity growth** has been **muted**. This is a result of three issues:

i) in China, following the 2015 Tianjin explosion that killed 173 people, new environmental and safety standards resulted in the **closure** of some sub-standard facilities and discouraged investment by others.

ii) land availability in some of the key tank container hubs in North West Europe, Singapore and Japan is limited and therefore very **expensive**.

iii) **investment returns** from depots and cleaning stations are **poor.**

Pepels of cotac notes: "As tank container numbers have grown, the logistical hubs - both at the major seaports as well as at the major production areas - have little room to expand so very few new tank container depots have opened".

Meanwhile, different regional procedures may limit depot capacities. Europe's cleaning operations are mainly drive-through, clean-on-the-chassis operations says Lee but 90% of Asian facilities are deliver-and-stack, with tank containers not necessarily being cleaned before stacking. Empty dirty units that are left - often for a long time - in the high humidity of Asia can make their eventual cleaning more difficult and therefore more expensive.

Eric Wu of Peacock Leasing adds: "Because our clean, survey and inspection standards are different from Europe and China, our cleaning and storage procedure is also different. In my depots, and in most Chinese depots, we will normally store empty dirty tank containers first, wash step-by-step, and then re-store. When the depot receives the survey instruction, we then do the clean survey and wait for the customer to pick up the tank. Tank containers being cleaned in China must disassemble the bottom valve during washing which leads to lower cleaning speeds than

in Europe. A harmonised - perhaps European-based global tank cleaning procedure - would maybe mean we could wash tanks faster".

Suttons echoes the concern: "In China, despite a surge in the volume of empty tank containers, including repositioned tanks, depots are **filled with stagnant empty tank containers**, leading to a low tank turnover rate".

Depot infrastructure growth in North America has been minimal, they add, resulting in a disproportionate increase of 240% in tank containers compared to a mere 10-15% growth in depots over the past decade.

Where are the depot capacity shortages most acute?

North West Europe, Singapore and South East Asia are all said to either tight or nominally full with several depots in the key Antwerp/Rotterdam area only being able to offer 'oneout, one-in' availability over the past few months. Seaco sees Europe facing more challenges than other regions.

Some depots are insisting that operators and lessors take their tank containers back after cleaning, rather than allowing them to be stored in the depot, where the lack of storage space for empty clean tank containers may prevent further cleaning operations - which are a higher value activity - continuing.

Several industry experts say that the lack of depot storage capacity for laden tank containers is especially acute in **Germany**, where laden tank containers often have limited storage options when moved, for example, to a rail terminal.

In the **UK**, depot occupancy is high but both empty and laden tank containers can still be accommodated. The influx of empty clean tank containers from competing tank operators into the **Singapore** depots, combined with limited movement, has led to depot congestion, says Suttons. Singapore's depot operations are constrained by restricted land availability, making it difficult to efficiently clean, repair, and shift tank containers with high turnaround requirements. Local operators say there is no sign of new depots being approved, except for LHN.

In **China**, most deep sea tank container hubs are along the coast, where there are 30 cleaning depots at Dalian, Tianjin, Qingdao, Lianyungang, Zhangjiagang, Nanjing, Shanghai, Ningbo, Xiamen, Zhuhai and Guangzhou. While most are currently balanced - with surplus capacity at the four depots in Tianjin - there are space shortages at the cleaning depots in Nanjing and tightness in Shanghai, which has the largest number of full service tank container cleaning depots.

The strong growth forecast in **South America** and **intra-Asia** will put further demands on both region's depots and cleaning stations.

More positively, few problems are reported in **Houston**, where demand is said to be "just about holding up" (although storage capacity limits are approaching). A common view is that there has been insufficient infrastructure investment in US tank container depots, where service levels can be poor. According to a number of tank container operators and lessors, a focus on quantity over quality has led to a decline in overall standards in the US. The consolidation initiated by KKR-backed Boasso

Global may, however, stimulate further investment and raise standards in the US.

There are no concerns in the **Middle East**, which is adequately servicing its growing tank container activities, although recent cleaning and storage demand has been greater than expected.

In the Gulf Cooperation Council (Saudi Arabia, the UAE, Kuwait, Oman, Bahrain and Qatar) there is no tightness in cleaning and storage capacity, says Mike Tunstall, General Manager of Sahreej Kanoo Tank Services in Jubail, Saudi Arabia. The utilisation of the cleaning stations in Saudi Arabia (7), Dubai (4), Qatar (1) and Oman (1) varies from 20% to over 80% - based on a single shift - so capacities can easily be expanded subject to labour availability.

Why has there not been more investment in tank container depots and cleaning stations?

Investment returns from the depot infrastructure necessary to support tank containers have been **marginal** at best; some operator-controlled full service depots have not changed rates for eight years.

Depots and cleaning stations are usually owned by tank container operators, lessors or private owners. Operators and lessors view them as essentially a defensive, quality-guaranteed service for, primarily, their own fleets and cite this as an added-value competitive advantage in customer negotiations. The facilities are often therefore viewed by them as **enablers**, **not profit generators**.

Most of the leading operators have their own depots in the key hubs in Europe (Antwerp, Rotterdam, Hamburg, etc), the US (Houston, New Jersey), the Middle East (Dammam, Jebel Ali) and Asia (Singapore, Shanghai, Tianjin, Zhangjiagang, Japan, South Korea).

Private owners, in contrast, tend to be family-oriented, smaller-scale local entrepreneurs, often with next-generation priorities. They focus their strategy on a two-to-five-year time horizon, often making reactive, opportunistic decisions in response to events as they happen.

As a result, neither private owners nor the corporate tank container owners have profit optimisation as an objective for their depots. This, combined with the competitive intensity between depots, keeps rates low. Some say too low. Lee says: "In my opinion, the industry simply doesn't pay enough for its cleaning".

Exceptionally high land costs and stringent regulations often make depot investments in Japan and Singapore financially non-viable. Meiko Trans' new tank container depot and cleaning station in Nagoya, Japan's largest seaport, is a rare exception. Japanese cleaning prices are so high that empty dirty tank containers are moved to South Korea for cleaning before being repositioned back to Japan although some prized sites in Japan are in the process of being decontaminated prior to new depot investments. In Singapore, land can only be leased, not owned.

China's increasingly strict environmental protection policy and legislation is making it ever more difficult to open new tank cleaning depots, especially in big cities like Shanghai, Ningbo

and Nanjing. Local municipal governments may ask for a large minimum investment and require local tax guarantees. A new 10,000 m² tank cleaning depot in Shanghai, for example, has to contribute a minimum of RMB 3 million (\$420,000) of tax per year to the local municipal government. This implies an annual revenue of around RMB 50 million (\$7 million), a major big challenge for a new depot.

The added-value activities of a full service depot make a significant impact on the pay back calculations for any new depot investment.

In general, there are **tighter constraints** on effluent and waste disposal but, in terms of land allocation, the need for depot storage space is lower if the tank container cleaning operations are working well within a full service depot.

More depots are, of course, opening all the time. Legend opened its second tank container depot in Kandla, India in January, two years after opening their first site in Nhava Sheva, which coincided with the opening of Zodiac/Samsara's nearby facility.

Lastly, new commitments, rather than new depots, are being made to the depot industry by KKR, the world's second largest private equity investment company. KKR are supporting Boasso Global/Quala's rapid acquisition programme - following the merger of the two - with the latest acquisition being Netherlands-based MTC. Economies of scale should be a key value-creating driver which may, possibly, be combined with new 'MacDonald's' levels of global service uniformity and operational excellence. Boasso's consolidation strategy, while possibly increasing capacity through improved depot efficiencies, does not however add any new depots.

Is the tank container storage shortage temporary or structural?

Some industry players believe that when a return to normal business levels is achieved in, say, two years, the depots will empty as tank containers become more economically active again and the current tightness will disappear. Others - the majority - view the storage capacity constraint as structural, noting that a better business environment will lead to more investment in equipment and therefore ever greater demands on the pressurised service infrastructure.

What is clear is that the pattern of chemical trade flows is changing, with low chemical investment in energy-disadvantaged Europe being off-set by continuing investments in Asia and, to a lesser extent, the US. As cotac observes, the demand for tank container depot and cleaning capabilities will also shift to reflect this changed chemical production footprint.

PART 2 of this analysis will feature in December's issue of *Tankcontainer Magazine* and will address the following questions:

- What are the consequences of tank container storage tightness?
- Do the investment returns support new depots?
- How can tank container storage capacity be increased?
- What will be the impact on the depot/cleaning sector of global investment company acquisitions?
- -Will more operators invest in depot/cleaning station facilities?

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With both companies working in partnership this has resulted in a superior product with proven benefits which is now well accepted by our customers.

Timothy Mclaren (Engineering Executive) Welfit Oddy

WE'VE GOT YOU COVERED
CONTACT US TO DISCUSS YOUR UNIQUE
TANKER CLADDING NEEDS





At AMFI Composites, we are proud to be a family business with almost three decades of experience in FRP composites.

At AMFI Composites, we are proud to be a family business with almost three decades of experience in FRP composites. The traditions of teamwork, collaboration and unwavering commitment run deep. These core values have not only defined our internal culture but have also been instrumental in pushing us to the forefront of the composite industry in South Africa.

Our team specialise in designing, manufacturing, and delivering innovative composite solutions that offer numerous advantages over traditional materials such as steel, aluminium and wood.

Over the years, we have developed and refined several ranges of tailored products that have been value engineered to satisfy numerous industry demands. However, our commitment to continuously improve our RAMTEX range, which is specifically designed for the tanker industry, is an ongoing journey. We invest constantly in R&D to test and evaluate the latest input materials and processing techniques.

Innovation, quality, and sustainability have always been our highest priorities. As an example of our commitment to staying at the forefront of technological advancement, we have recently incorporated OPTICURE into our processing methods. This cutting-edge curing technology has allowed us to diminish emissions during production

and eliminate specific chemicals when compared to traditional curing systems. Potentially we will be able to eliminate solvents from our curing process. OPTICURE has not only elevated the quality of our products but has also enhanced our production efficiency.

We take pride in our close partnerships with our clients. These collaborations enable us to not just meet but optimise their specific requirements. We consider ourselves strategic partners rather than just a supplier. We listen carefully to their needs and tailor our products to suit their individual needs if necessary.

We have invested significantly in advancing our production lines and supply chain technology. This allows us to efficiently process and extract maximum value from what are essentially standard input materials. Why does this matter? Well, it comes down to price. We could offer high-performance, over-engineered cladding products but they would only be relevant if they aligned with our client's budgetary needs. Otherwise, they may be seen as unnecessary or financially unviable. Composite materials are always evolving and we tirelessly enhance our composite engineering to boost performance and keep prices competitive. Our RAMTEX range is a testament to this commitment; we believe it goes above and beyond expectations.

We believe that Tanker Cladding needs to offer many essential qualities such as high heat distortion resistance, low thermal expansion, high strength, high impact resistance, and toughness. In addition to this, it also must serve as a colour-matched, highly aesthetic cover that provides the

platform for the service provider's company branding, ensuring it is not just functional but also visually appealing.

Additionally, tanker cladding must endure continuous exposure to various extreme weather conditions during transport. It needs to be able to withstand not only the elements but also the demands of rigorous cleaning and washing often involving the use of aggressive acidic and alkaline-based cleaners.

Weight reduction remains a Vital Key Performance Indicator in the transport and logistics sector. In line with this goal, we have recently made strategic investments in specialised pultrusion equipment. This broadens our range beyond just cladding solutions for the tanker industry. Our aim is to collaborate with our clients to create tailored structural and functional profiles that have the potential to replace traditional materials like steel and aluminium with composite alternatives. This shift not only reduces weight but also improves corrosion resistance and may potentially lead to cost savings.

We are rooted in being a family business and our focus has always been on producing high quality products while maintaining a personalised approach in our dealings with our current clients in various industries. Now we are ready to introduce AMFI Composites and our ISO Tanker-specific RAMTEX range to the global market. We have quietly been supporting the industry behind the scenes for years and we are excited to reveal our role. We look forward to inviting the industry role-players to engage with us and to discuss their individual needs.

HÜNI + CO expands its operational reach to Antwerp's chemical hub

HÜNI + CO, Europe's leading tank container coatings applicator, has been based in Friedrichshafen, Germany, for more than 160 years. Now it is expanding its services to the Port of Antwerp, in a new partnership with Van Moer Logistics. CEO Alexa Hüni told Felicity Landon why this is a big step forward for the family-owned company.



Earlier this year, HÜNI + CO announced an exclusive partnership with Van Moer Logistics to deliver complete interior coating services for tank containers within the Port of Antwerp. Up to this point, HÜNI has focused on its home site for the application of highly functional corrosion protection coatings. Whether a tank container requiring coating or a consignment of new frying pans ready for a non-stick coating, the process has been based on products being brought to Friedrichshafen, in southern Germany, for the work to be carried out.

"The tank container (or other product) is delivered to our site and we do the surface preparation, the application of the coating, the heat cure, the quality inspection and the documentation, then send it back to the customer," says CEO Alexa Hüni. "We have carried out some special coating applications at the site of a customer if needed - for example, some 20 metre-high storage tanks already installed at a chemical site. But what we have established in Antwerp is very new."

Repairs at third-party depots

Eight years ago, HÜNI + CO launched its first tank container repair shop at a third-party depot. Now there are more than ten such depots, where the staff are trained to carry out small repairs of tank container coatings. When a tank container goes into the depot for cleaning and inspection, any minor mechanical damage discovered can be repaired. "The depots purchase the material from us and if they have any questions, we can advise on mechanical damage, chemical attack or something else," says Hüni. "This is much easier for the customer, as the tank container does not have to be transported to us. That was really the foundation - now we are working with Van Moer on a larger scale."

Van Moer already offered minor repairs to tank container coatings as a HÜNI-certified depot. In the new partnership, it will offer far more comprehensive services, at the hub of Europe's chemical and petrochemical sectors. This arrangement will be important for companies seeking a 'greener' solution, says Hüni.

Brings a value-added service

"Normally, everything has to be delivered to us but many companies want to reduce their transport costs and reduce distances, carbon dioxide emissions and time. Some of our customers suggested that we could open a new coating shop but building a completely new factory and starting from scratch on a greenfield site and saying 'here we are, please send your tanks' is too big an investment in the first stage. No one could say they would send 200 tank containers for coating - there was no forecast from our customers' side so we decided to find an intermediate step and work with an established company that has the infrastructure and willingness to take another service into their portfolio."

The Van Moer team have been through training in Antwerp, followed by a four-week training programme at Friedrichshafen. "We want to ensure a good knowledge transfer," says Hüni. "By the end of 2023, if we get an enquiry from a customer to get a tank container coated, we will be able to offer them the opportunity here or in Antwerp. Another advantage is that, if our own capacity is fully booked, we have alternative capacity we can rely on. It's like an extension and we can give the customer the choice where they go."



Early feedback has been excellent, she notes: "Many customers said: 'Great idea, very good decision, finally!' - now we need to see if that happiness of our customers translates into orders."

Van Moer keeps stock

Under the arrangement, Van Moer will keep some coatings in stock but, as there is a limited shelf life to some materials, most will be ordered in as needed. "We supply the materials and we stay in the forefront of the contract with the end customer," says Hüni. "So for the customer, it shouldn't change very much. The customer still talks to us for checking construction, compliance issues, chemical resistance enquiries, paperwork and documentation."

Other locations?

Are many more such partnerships likely? "Basically, yes. We can copy and paste this model to other regions. A good location would be in North Rhine-Westphalia, where we have many biochemical partners. In the long-term perspective, France would be another possibility, probably in the area around Le Havre."

Company history

Although HÜNI + CO is well established as a tank container coating specialist, this activity is far removed from the company's beginnings as a leather factory and tannery in 1859.

After the devastation during the Second World War, it was Alexa Hüni's grandfather who rebuilt the business - soon figuring out that there would not be a long-term future for leather manufacturing in central Europe due to bureaucratic obligations and lack of raw materials. "He was smart and opened his mind to what else we could do," she says.

There was no direct link between leather and surface protection coating but there was a company next door manufacturing storage tanks for wine. In the 1950s, the industry had started adding sulphites to extend the shelf life of wine but the interaction with sulphite and aluminium storage tanks was affecting the taste of the wine.

"They needed to find a solution to protect the wine from the shell of the container. My grandfather did his research and found a supplier of the coating required. He listened and learned what could be done to put a protective coating into these containers."

Kanoo Tank Services

Sahreej

Jeddah Depot

Area: 15,000sqm

Location: SHAMS Container Terminal, Al Moulysaa

Al Khumrah Al Saif Beach Road, behind Guazain

Roundabout, Jeddah 22623,

Kingdom of Saudi Arabia.Postal Address: PO Box 1805, Al-Jubail 31951,

Kingdom of Saudi Arabia. Facilities and Equipment:

- * 4 Cleaning Slots (Capacity 450 per month)
- * Inspection and Testing Area
- * Statutory Testing Repair Area with Rotator
- * Tank Heating

Services:

- * Tank cleaning and Tanker Cleaning.
- Full repairs to frame, cladding and shell (including pitting and shell inserts)
- ★ Cross Loading.
- * Laden and Empty Tank Storage.
- * Steam Heating.
- * Tank Leasing.
- * Nitrogen Services.
- * On-hire/ Off-hire.
- * Off-site Emergency Response

Tank Types Serviced:

Certification and Membership

- * ISO Tanks
- * ISO9001:2105
- * Road Tankers





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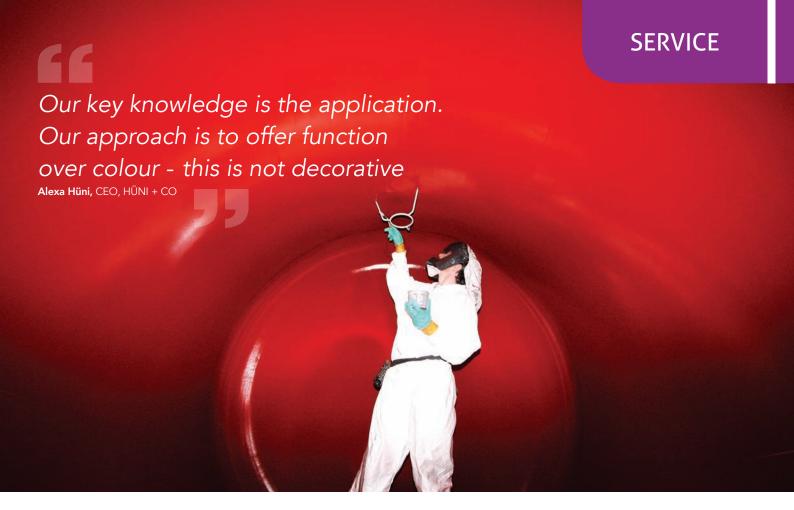


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The two businesses ran in parallel until the tannery machines were sold in the 1960s and the decision taken to focus on coatings. In 2005, HÜNI entered the tank container market. Today, the company offers a broad range of coating solutions for tank containers, storage tanks and vessels, semi-conductors and non-stick pans (amongst many other items).

"The idea is always to offer a new functionality to a mechanical surface," says Hüni. "Our key knowledge is the application. Our approach is to offer function over colour - this is not decorative."

The company's 60 employees include a technical sales team and a materials scientist. Customers sometimes submit details of a tank container and the data sheet of the chemical to be transported, asking which coatings solutions are available. "We can check that with our suppliers and usually find one or two possibilities."

Sixth generation Hüni

The sixth generation Hüni to run HÜNI + CO, she pursued a career elsewhere to gain experience before joining the company in 2016.

The family aspect is important, she says. "There are much stronger ties between management and the company. We think in longer investment cycles - we are not trying to look at five years, it is what we do in my generation and what's going to happen in the next generation. Family ownership also makes a difference for employees - I know everybody by name and they value this. They know they are not just a number but respected as a person."

Finding and recruiting staff is often a challenge. "After the Covid period, it became even more difficult to find people. But I think this is something that every industry is experiencing at present. As for training, even if somebody has had experience before,

if they join our company we retrain them on our coatings and application procedures and we continue to have internal training and retraining and quality checks to avoid any risk of short cuts. Safety is paramount and in fact, preparation and protection - suits, external air supply, etc., - generally takes longer than the application itself. Health and safety is a big issue."

Growth market

Alexa Hüni is confident that demand for tank container coatings will continue to grow, particularly as there is increasing demand for the international transport of dangerous goods and aggressive chemicals. "Also, with every tank container coating now, at a point in the future it will have to be repaired. We are confident there will be a growth in tank container numbers - that's what we see in annual reports."

HÜNI + CO is currently reworking its strategy for the next five to ten years - "We will be in the coating business. Besides the tank container business, there is always a demand for functional surfaces. Within this period of time, hopefully we will have more automation in response to a lack of workers," says Hüni.

The company is responding to rocketing energy costs and seeking to reduce its carbon footprint by investing in a rooftop photovoltaic system; this will generate 450KW at its peak, meeting a quarter to one-third of the company's energy requirements, "which are sky high".

It is a constant effort to find new suppliers of coatings and Hüni has no doubt that supply chain issues will continue to be challenging. Meanwhile, the European Union continues to tighten up regulation on chemicals. For example, a complete ban on perand polyfluoroalkyl substances (PFAS) is being discussed . "This would impact materials like Teflon. These have no major role in tank containers, but who knows what could happen next? I can imagine from the regulatory side there will be challenges in the future - but I am confident that there will also be solutions."



TALKE flies its flag in Port Klang

TALKE is one of the world's leading providers of logistics solutions for the global chemical production and storage industry. What's behind its new DG Malaysian warehouse?

Introduction

More than half of the world's top 50 chemical companies already rely on the services of this family-owned company, founded in Germany in 1947. It all started with Alfred Talke Sr. With just one lorry to his name, he started out transporting consignments for neighbouring chemical companies. Five years later, he unveiled his first ever self-designed lorry, developed especially for the transportation of acids and alkalis. "Safety, quality and customeroriented service have been an integral part of our corporate culture since day one," says the company.

In Europe, the Middle East, India, China and the US, the TALKE Group has positioned itself as an integrated service partner for modern outsourcing and contract logistics solutions. Every one of more than 4,000 employees is dedicated to ensuring the highest possible levels of quality and safety.

New DG warehouse in Malaysia

In the spring of 2022, TALKE started work on the construction of a warehouse for dangerous goods in Port Klang, Malaysia - forming the first phase of a larger chemical logistics centre. The plot is located within the bonded Westports terminal. The completion of this facility is slated for this year.

The summer of 2022 saw the arrival of Vijaya Kumar from Westports, Port Kalang who joined TALKE Malaysia as managing director at the same time that the company started construction of a 17,500 square metre dangerous goods warehouse inside the Westports Terminal of Port Klang, Malaysia. This will be followed by the construction of a second phase of a similar size for non-dangerous chemicals. For this, TALKE has leased an area of 14.7 acres. The plot is located within the bonded Westports terminal

of one of the region's busiest ports. The location enjoys prime sea and road access.

Kumar says: "While I am very happy about my career at Westports, the opportunity to join TALKE simply came at the right time. Just before Covid, we started planning the next phase to expand Westports even further with concession of the government. Then the pandemic slowed everything down and I asked myself, where I want to be five years from now? I think I have learned everything I could about operating a port and reached the peak of my career at Westports."

Value-added services

In its 76-year history, TALKE has built up specialised expertise in handling dangerous goods and chemicals. With this knowledge, TALKE seeks to meet the growing demand for modern and scalable logistics infrastructure. The state-of-the-art dangerous goods warehouse is unique in Port Klang. In addition to dangerous goods, TALKE will also offer storage for polymers and other non-dangerous chemicals, complemented with value-added services such as refilling or packaging.

With this step, the company is creating a new hub in Southeast Asia for its customers. The region continues to experience high GDP growth rates in the chemical industry and expects consumption of polymers and chemicals to increase. Malaysia lies at the heart of this region, where intercontinental and intra-Asian maritime trade routes meet. In recent decades, Malaysia has seen a huge increase in container traffic, surpassing other emerging economies in the region. Port Klang is the country's most important port and is strategically located on the peninsula's west coast on the Strait of Malacca - one of the world's busiest trade routes with over 100,000 ships passing through annually.





Safety, quality and customeroriented service have been an integral part of our corporate culture since day one

After Singapore, Port Klang is the second largest port in Southeast Asia and has become an attractive alternative. Major advantages are the lower price level and the availability of affordable land. In terms of container throughput, the port ranks 12th in the world.

As part of the expansion, TALKE plans to be actively involved with Westports in the strategic shaping of Port Klang and the region. "Westports Port Klang has great potential for the development of integrated facilities for polymers and chemicals. We firmly believe that the region and our facilities will be of great strategic importance to our existing and new customers in the years to come," says Alex Herreboudt, director Middle East and Asia at TALKE. "We want to further develop the entire site and have committed ourselves to extensive investments. We are able to flexibly adapt to changing market and customer requirements and can offer services that are not yet sufficiently available in Port Klang."

Chemical logistics centres

TALKE has already pioneered the development of successful chemical logistics centres in other regions in the past. The company demonstrated this, for example, in Dubai, where it now operates one of the most modern warehouses for chemical products. Its business success is based on existing relationships with large and medium-sized companies producing and distributing chemical products. With its comprehensive warehousing services, the TALKE Group can support its manufacturing customers along the entire length of the supply chain. Companies can rely on a wide range of storage options suited to a large diversity of materials, including silos, racked warehouses, hazardous goods storage facilities, bonded warehouses and facilities for chemical waste storage.



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At the request of customers, TALKE can also handle the sampling and refining of product. Meanwhile, modern drumming, bagging and filling facilities for all packaging types will guarantee the safe and efficient handling of consignments, whether non-hazardous or hazardous. Access to all sites is - of course - restricted. On top of all this, customers "can sleep easy knowing that each of the sites is equipped with state-of-the-art fire warning and extinguishing systems," says the company.

This readiness to explore new things and actively work to contribute to the success of customers is still typical of TALKE today. It invests in employees' education and training, as well as in new sites and state-of-the-art equipment, in order to offer the best possible range of services. Today, its services include standardised best practice solutions, as well as transportation, logistics and consultancy services tailored to meet individual requirements.

Plotting a path

In 2022, its 75th anniversary year, TALKE invested a lot of time into defining its position and plotting a path for a successful future. As number one solutions partner for the world of chemistry, TALKE always seeks to set new standards for customers and takes logistics to the next level. Alfred Talke, member of the executive management and a shareholder, explains that this represents a continuation of how the company has seen itself since its very foundation: "When my grandfather

founded TALKE, he saw his primary task as being to develop solutions to the challenges facing his customers. We are continuing this self-concept as we embrace the future and make logistics a success factor for our customers."

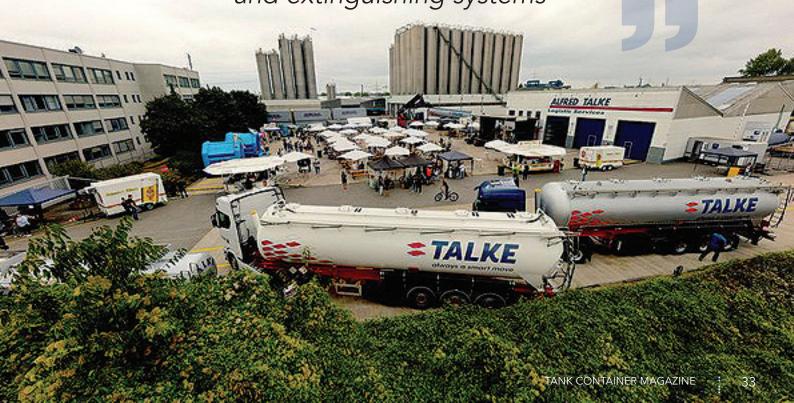
The key success criteria for this are the global TALKE team's pioneering spirit, expertise and engagement as well as the focus on responsibility. As a family business, TALKE is aware of its special responsibility in ecological, economic and social terms. On the basis of its newly formulated mission statement, TALKE will sharpen its strategic focus with an even greater emphasis on customers and their requirements.

New brand

The new brand expresses this more sharply defined self-concept in a visible way, consciously combining tradition and modernity. The company therefore deemed it important to refine and develop the appearance of its word/figurative mark rather than invent a completely new one. A new figurative element symbolises the "next level" to which TALKE wants to take its customers. And the new slogan - "always a smart move" - formulates the company's aspiration as well as its promise to provide customers with intelligent solutions to continue taking them forward in the future, as has been the case from the outset. With a total of more than 4,600 employees, TALKE is active within Europe, the Middle East, India, China and the United States.



Customers can sleep easy knowing that each of the sites is equipped with state-of-the-art fire warning and extinguishing systems





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Think Tank: Combining the Internet of Things with satellites yields actionable intelligence to keep highly explosive gases safe

Advanced IoT solutions built around satellite technology reliably track hazardous gases in transit to customers but the rich data enabled yield benefits right across the supply chain, writes Gavan Murphy, Globalstar Director of Marketing EMEA and APAC.



Gavan Murphy, Globalstar

It's clear that when petrochemical companies ship potentially explosive products in rail tank cars and tank containers, it's critical that they know the location of their assets. However, today's advanced solutions that harness the Internet of Things, the latest hardware and software, as well as space-based technology, deliver benefits far beyond simple track-and-trace.

After initially deploying the Ovinto Sat asset tracking platform to its tank containers a few years ago, leading petrochemical producer INEOS Oxide soon discovered a plethora of advantages in addition to delivering the essential imperative of safety.

INEOS Oxide began its initial use of the Ovinto Sat system, created by Belgian innovator Ovinto, by carrying out track-and trace on its tank containers conveying ethylene oxide.

The Ovinto Sat tracking solution, based on Globalstar satellite technology, monitors the transport of INEOS Oxide's petrochemical products in tank containers. This solution reduces the risk in transportation by monitoring the condition of the chemicals in each vessel while providing valuable shipment information for the supply chain.

Such was the success of this initial deployment that INEOS expanded it and soon the Ovinto system was being used to track and monitor all rail tank cars and tank containers dedicated to the transport of its hazardous products, totalling over 700 device units to date. Ovinto Sat collates data from various sensors, and from GPS transmitting devices installed on each of INEOS Oxide's tank cars and containers, and sends it securely by satellite to customer operations teams at regular, user-defined intervals.

"Ovinto Sat's innovative and powerful tracking platform helps our business in so many ways, the most important, of course being safe conveyance of our products," says Business Safety, Health & Environmental (SHE) Manager at INEOS Oxide, Patrick De Block.

Ensuring safety

Two of the main products which INEOS Oxide transports are ethylene oxide and propylene oxide, primarily used to manufacture products for the following industries and applications: agrochemicals, construction, pharmaceuticals and personal care, solvents and inks, surfactants and detergents. Both chemicals are highly explosive, flammable and carcinogenic to humans and animals.

Ovinto Sat leverages IoT (Internet of Things) tracking to do much more than simply provide positioning data. "We always want to know where the rail tank cars are, but the really important parameter we must know for safe transport is temperature." After evaluating several alternatives in the marketplace, INEOS decided to deploy Ovinto's complementary PT1000 solution that monitors the surface temperature of the tank container or rail car contents. The temperature of the gases in transit is monitored every two hours. The solution has an online version and a local version, this duality deemed essential backup to validate the vessel's thermometer readings.

Critically, all Ovinto Sat solutions are certified to the very highest ATEX safety level for explosive materials.

Multiple operational benefits

While it is vital that the transport of explosive chemicals is completely safe, De Block points out that the system also has many operational benefits.

This IoT-empowered solution gives INEOS Oxide instant updates about whether a rail tank car has been loaded or unloaded or is ready to be redeployed. This helps the company enhance return on investment and optimisation of assets.

In many cases, customers' licences allow them to store the gases at a maximum of 25 degrees Celsius. Knowing the precise temperature of the products at all times enables the parties to optimise logistical arrangements. This not only ensures the safe transit and delivery of the products, it also ensures that delivery timetables meet the needs of both supplier and customer, commercially as well as for assurance of regulatory compliance.

Enabling informed and timely decision-making

The company uses the system to set up geofences around customer locations. The tracking data from Ovinto Sat enables INEOS Oxide to reliably provide granular detail on car or tank container temperature alongside delivery logistics as the shipment nears its destination.

"We are now able to harvest so much data, we can make informed predictions regarding temperature fluctuation, and any necessary requirement for refrigeration, as our shipments move across countries," De Block notes.

Additionally, with the ability to monitor the location and status of each tank, all parties can be aware whether all commercial obligation have been met. "If we occasionally see that a customer is taking an unduly long time to unload a tank, we can investigate and take appropriate action to get things back on track," he adds.







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Europe's main transport corridors are risk-assessed and that data is fed into Ovinto Sat. If for any reason a diversion occurs, INEOS Oxide's operational teams are alerted and have the ability to take any necessary mitigating action.

If road deliveries encounter delays due to traffic congestion for example, Ovinto Sat produces reliable data which enables local authorities to be apprised that the contents of the tanks in transit are safe.

Asset optimisation

Ovinto Sat's event logging system is loaded with all technical details of the tank car, as well as maintenance requirements and schedules. Having a long term recorded history of each tank further enhances safety and informs technical decision making. "This system is active, continually emanating data, it's very useful for analysing trends and ensuring that each tank is technically performing as it should." He shares that authorities appreciate that providers like INEOS Oxide have made investment in achieving this level of technical understanding.

De Block stresses the importance that the tracking and monitoring system be reliable: "if the solution you're using is not completely reliable, you're lost."

"Our deployment of Ovinto Sat has proven extremely useful to parties across the supply chain," comments De Block. "There are other solutions on the market, but we know that ATEX-certified Ovinto Sat, with its reach and constancy enabled by Globalstar's satellite technology, is the ideal solution for us," he added.

He particularly appreciates Ovinto's dedication to customer satisfaction and innovative problem-solving: "If ever a new challenge arises, we can rely on Ovinto to leap into gear and come up with a solution that's both innovative and, equally importantly, cost effective."

An example of this commitment to innovation, additional to its hardware, Ovinto has also developed a reference Supply Chain Optimisation SaaS platform dedicated to rail and intermodal freight to support the IT infrastructure of its customers with complementary services that increase efficiency and reduce costs.

Keeping stakeholders informed

In the event of an emergency, Ovinto Sat can provide stakeholders and public authorities with a detailed understanding of the tank container or rail car location and conditions.

Critically, satellite technology enables all stakeholders to be confident that IoT transmissions from the tanks and cars are

reliable, ubiquitous and uninterrupted. This delivers the very highest level of safety compliance, benefitting and protecting all supply chain partners as well as infrastructure authorities, and the organisations and people who rely on railways and roads.

Long battery life

INEOS Oxide has gained many learnings from trials of other solutions and technologies, including, for instance, the importance of battery management. Frequent changing of batteries incurs high operational costs and fundamentally changes the economics of a track-and-trace system.

"The Ovinto Sat system is intrinsically energy efficient, and with the latest batteries lasting years, the resultant low maintenance cost sets it apart," he comments.

Emerging enhancements to Ovinto Sat include the ability to accurately measure the amount of gas in a tank container or rail car to help optimise these assets' use. Explains De Block; "At this point, when a tank container returns from the customer we assume that it has been unloaded; but really we would like a more precise verification of this." De Block explains that an empty rail tank car heats up more rapidly than a full one. If a temperature rise is identified, there might be an assumption that the vessel is part filled and at risk, triggering alerts. But in reality, it might be empty and pose no danger.

At the core of Ovinto Sat is Globalstar's low power STX3 chipset, the smallest satellite transmitter of its kind in the market. Since it is battery powered, Ovinto Sat enables customers to monitor hazardous materials in unpowered environments such as rail cars and tanks. The Ovinto Sat battery can last up to eight years. The extra-long charge lifespan of the batteries used in Ovinto Sat yields its own benefits: "If we had to carry out maintenance on the devices or change the battery every year or half year, it would incur significant operational cost and make the solution uneconomic," De Block explains.

Frederick Ronse, Ovinto CEO, commented: "With our ongoing engineering enhancements roadmap, new features will continue to help INEOS Oxide reduce risk, increase the safety of its cars and tanks, and enhance supply chain decision-making. Globalstar technology is our communications core due to its ubiquitous reach, reliability and low power consumption compared to GSM."

"The matter of pure safety is of course paramount; we always need to know where our assets are, and we need to know the temperature of the contents, but the system is really helping us achieve optimisation of our processes," De Block comments



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A winning combination

A strong commitment to quality, care and customer satisfaction is continuing to pay off for Turkey's TET Global Logistics.

As well as being one of the leading logistics firms in Turkey for the transport of liquid chemicals, TET Global Logistics (TGL), says deputy general manager Cemil Can Yalçın, is also one of the few players in the sector to have been "established under the leadership of female executives". Initially founded with a focus on domestic road transport, the Istanbul-headquartered company today provides "a 360-degree service", offering customers a broad range of services, from international road tanker transports and intermodal shipments to tank cleaning and tank container storage.

"Our priority has always been to lighten the logistical burden for our customers," Yalçın says. While this "can be achieved mainly by providing door-to-door services", the company's flexible approach sees it regularly adjusting its services to meet the particular needs of customers. "Our goal is to deliver a high-quality product to the consignee, eliminating all potential logistical risks by performing a smooth operation. This can only be achieved with a professional team. With our 60 years' experience, we believe we have accumulated this professionalism."

Longstanding partnership

In addition to operating is own fleet of tank containers that it primarily uses for the domestic transport of dedicated product groups, TGL is also a longstanding Bulkhaul partner, having acted as its local Turkish representative for the past decade. "Bulkhaul is a highly important tank container operator that ranks among

the top five globally. Through the knowhow they provide us, we gain crucial insights into worldwide liquid chemical logistics, tank container technology and market trends," Yalçın reports.

"Now we are not only able to follow the tank container market within Turkey, but also globally," he continues, explaining that this has enabled TGL to better direct its investments with regard to the latest and most effective technologies and practices. Similarly, it has also greatly aided it in terms of attaining quality certifications and standards and in maintaining an ever more active professional workforce.

The right partner

The benefits of the arrangement, though, are certainly not one-sided. "For a foreign-based company to succeed in a different region, it requires collaboration with the right partner. Correct market analysis, the transparent communication of customer and market needs and the creation of new markets can only be achieved through a partnership with a local company," Yalçın says. As such, TGL brings much to the table, helping to advance Bulkhaul's growth and competitiveness as a "respected and preferred name" in the industry.

And when it comes to other long-standing partnerships, TGL is able to list a host of big-name Turkish and international players among its clients. "Thanks to their trust, the number of our customers has significantly increased over the years,"





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Yalçın reports. "Thus, we are able to provide a service for any demands related to liquid bulk chemicals that come to mind."

"As long as it's a liquid, we have the capability to provide equipment for all kinds of products. These products can be related to food, gas, petroleum or chemicals," he states. Recent developments that clearly highlight this include the signing of a major chemical transport contract with Dow Chemical and new strategic projects with Cargill and Eti on the food front.

Tank container evolution

In terms of tank containers, Yalçın sees the market as having "developed and evolved significantly" over the last 30 years. "In the past, we used to put extra effort into introducing and explaining tank containers to the industry," he says. This, though, has now all changed, with pretty much every manufacturer and supplier alike well aware of the many benefits offered by these multimodal systems.

"Currently, there are around 10-15 tank container operators and agencies in the Turkish market," Yalçın continues, noting that all of the 10 largest global operators are present in the country either directly or through representative agents. "This situation has many positive aspects, but the most important one is that it increases competition," he says. "Competition means quality; more performance in its turn means more learning."

Of course, things could always be better and while service quality and demand might be on the up, finding suitably qualified staff can often prove challenging, with Yalçın describing the need to attract and retain such employees in a highly competitive job market as "the most important challenge" facing the sector. "It is difficult to find experienced employees in our industry, and there is a need for young individuals who are curious and enthusiastic," he says.

A focus on HSEQ

As a company that responsibly handles significant volumes of dangerous goods, TGL has always placed a clear priority on matters relating to health, safety, the environment and quality (HSEQ). "For many years, we have successfully completed SQAS audit system evaluations with high scores," he reports. "To maintain these standards, we always keep our working systems up to date. By keeping track of developments in the HSEQ field within our industry and globally, we ensure that our employees and drivers are taking training courses that prepare them for change and transformation."

"Logistics is a valuable sector and while conducting our operations we are conscious of the need to plan, keeping our future in mind," he says. As such, the company is keen to spread environmental awareness throughout all branches of the organisation and prides itself on being one of the first Turkish companies to land a Green Logistics Certificate. Moreover, it has also now added EURO 6 trucks to its fleet of around 300 vehicles, reducing both its fleet's over all age and its total amount of emissions.

Digital developments

Digitalisation is another matter of great interest to the company, identifying it as a means by which it can further enhance its ability

to best serve the needs of customers. "As a company, we are currently ready to integrate [our] vehicle tracking system with our customers," Yalçın says. As such, TGL, he explains, can now automatically monitor the loading and unloading process as required and is also developing a pilot project to make its on-theroad heating service trackable online.

What's more, by combining the capabilities of artificial intelligence with its vehicle tracking system, TGL plans to further innovate fleet management over the coming years while simultaneously enhancing its pre-positioning and reservation activities via the ability to accurately predict customer orders. This will then mean that TGL "will be in a position to automate the sharing of all control processes from the pre-order taking process to the post-order processes" in accordance with its focus on total quality management.

Future plans

Meanwhile, TGL's tank cleaning and storage facilities are able to send tank container users cleaning and test certificates as well as all relevant entry, exit, condition and maintenance information remotely via cloud-based structures. "We are also expanding our field research to meet the growing needs of our customers," Yalçın states, revealing the company's goal "to become an R&D centre in the coming years".

"With the responsibility of a growing brand in the field of international logistics, we know very well the meaning of technological development and putting this knowhow into practice for customers," he says. "In particular, the impact of software technologies on large operational networks is indispensable for a sustainable business network and for the future. At this point, it has become very important to make differences with valuable added services."

Already reaping the rewards of its digital efforts, "especially in business continuity management", TGL looks set to continue on its course of digital transformation for some time to come. "We have started reengineering and process optimisation projects this year and we are planning to renew ourselves for the changing future in this area as well," he reports. "More eco-friendly, easy-to-implement and high-impact projects will be our primary focus."

Optimal service

Underpinning all this is the company's commitment and proven ability to fully understand its customers' needs and so undertake all necessary steps to provide the optimal service for their requirements. "Customer satisfaction is of great importance to us in every aspect," Yalçın states, noting that to help achieve and maintain this, TGL has long assigned dedicated representatives to its contracted clients.

"These team members operate within our customers' facilities, working closely with them by handling all logistics operations on their behalf. This approach minimises the logistical workload for our clients and saves them time. Consequently, it gives them a chance to concentrate on other important issues, enabling them to work more effectively," he reveals.



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- Founding Editor, Tankcontainer Magazine

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Pest control

Philip Eastell, deputy head of global marketing at Chugoku Marine Paints, comments on the role of tank containers to the global spread of pests and diseases in container shipping. Marine Paints, comments on the role of tank containers to the global spread of pests and diseases in container shipping.

You might be wondering why a representative from a container paint supplier, is discussing the issue of pests and diseases being spread around the world via the container shipping pathway. Well, the issue has now become so serious that all stakeholders in our industry, including the tank container sector, need to be aware of it and support ways that we can all contribute to mitigating the problem.

Bio-security concerns

On a personal and voluntary capacity, I also sit on a number of horticultural-based boards who engage with the UK's Department for Environment, Food & Rural Affairs, the government department under the International Plant Protection Convention (IPPC), responsible for managing the inspecting of containers, ships and cargo entering the UK. Reflecting the concerns of numerous domestically-based horticultural and garden organisations around the world, there is extreme concern about the introduction of pests, diseases or invasive species that threaten the bio-security of a country and the devastating impact this could have both commercially and on the natural environment.

The problem was highlighted to an international audience in September 2022 in London, through a conference jointly organised by the World Shipping Council (WSC), Container Owners Association (COA), Bureau International des Containers (BIC) and the Institute of International Container Lessors (IICL) at the request of the International Plant Protection Convention (IPPC) under the United Nations (UN). Together with Mike Downes, Technical Consultant for BIC, we presented the technical considerations on how our container industry might help reduce, or mitigate, these risks.

Collaboration needed

This very high level of collaboration to address this problem, reflects how seriously the container shipping industry takes this issue and wants to help find solutions.

Following the conference in London, it was universally recognised that the first line of attack could be through better quality inspections of containers prior to export or empty repositioning moves, and where possible through an increased level of cleaning, to remove soil, seeds, plant debris, insects and egg clusters, particularly from the undersides of dry containers and the corner castings of all container types, including tank containers.



The container industry already had in place an existing Unified Container Inspection and Repair Criteria (UCIRC), as well as Joint Industry Guidelines for the Cleaning of Containers, originally issued in 2017, and it was agreed to revise these to add inspections for visible pest contamination, and to highlight the need for additional cleaning where necessary.

The recently revised Inspection Criteria (UCIRC) prepared by BIC, ICS and WSC can be found at the following link: https://www.bic-code.org/wp-content/uploads/2023/07/UCIRC_BrandedFolderDocument2023_EN-3.pdf

The recently revised joint industry cleaning document, named Prevention of Pest Contamination of Containers: Joint Industry Guidelines for Cleaning of Containers, prepared by BIC, COA, WSC and the IICL can be found at: https://static1.squarespace.com/static/5ff6c5336c885a268148bdcc/t/641c85c80b171970243dc24a/1679590858303/Cleaning+of+Containers_Joint+Industry+Guidelines_+EN.pdf

There has been another IPPC conference this year in Brisbane, Australia, where Mike Downes moderated a panel on this issue, and Mike and I will also be presenting again at this year's Intermodal Conference in Amsterdam on 10 October. Please do join the session if you want to learn more about this issue or talk to us individually.

MARKET



Stink Bug









Khaphra Beetle





Under-structure examples

Tank containers can be part of the problem

Whilst tank containers have no base frames as such, pests and insects can of course land on any part of the equipment and transit between continents. Even snails have been known to hitch-hike on a tank container.

Should an invasive pest or disease enter a new continent, the consequences for that region could be catastrophic, especially if it affects agricultural or forestry economies.

So, why is a container paint supplier interested in this issue? Well, questions were put to us by container owners to investigate the possibility of adding some biocide or chemical deterrent to our coating formulae, that would help prevent insects either from laying their eggs on the surface of the containers or from hitchhiking inside the containers, as well as helping to stop bacteria and disease.

Unfortunately, for a paint supplier, there are a number of issues relating to this idea, not least the extra costs involved and the potential technical complexities, but also the life expectancy of any products being added to the formulae, bearing in mind most containers are expected to have an operational life of 15 years. We also have to consider that for the interiors of dry freight containers, coatings have to be approved by the US Food and Drug Administration, and any potential biocide added to the formulae would most probably be in conflict with this requirement.

Ditch the bitumen

However, containers with base frames are also typically coated with bitumen, or a similar product, on the underside and Chugoku were the first company to withdraw such a product from the market on environmental grounds. However, this process is still widely used and it is still a main reason why insect egg

clusters, soil and plant debris stick to the bitumen and are carried around the globe.

Tank containers have no base frames but they still have many surfaces, nooks and crannies that can harbour insects or eggs and spread pests and diseases around the globe.

Therefore, it is still equally important for all tank container operators and owners to be aware of this problem and to help play their part in addressing this problem.

"When each party in international container supply chains makes sure to start and end their work with clean cargo and containers, then containers will reach their destination faster, while our agriculture, forestry, and natural resources are preserved", says Lars Kjaer, Senior Vice President of WSC.

Brown Marmorated Stink Bug

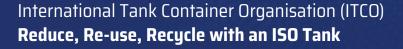
To emphasise how current this problem, which can be either ongoing or seasonal – in August, CMA CGM issued a stark warning to their customers and shippers highlighting the problems posed by the Brown Marmorated Stink Bug (BMSB) and its rapid spread throughout Europe and North America, and the threat to Australia and New Zealand. This is just one example, but the importance of inspection and identification to help stop pest infestations and protect bio-security is strengthened in their corporate guidelines, stating: "It is the responsibility of the customer with cargo subject to these restrictions to meet treatment and certification/reporting requirements for their cargo, categorised as either target high risk or target risk goods".

Everyone involved in the handling of containers in the global supply chain needs to be both aware of this problem and also the actions they can take to help stop or prevent the spread of pests and diseases through the container shipping pathway.

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