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Hans Augusteijn, President of market leader Stolt Tank Containers, talks to Tankcontainer Magazine about sustainability, strategy and a strong team.

Anxious times

All in all, there is more than enough to worry about in the current tank container market. We highlight the gloom among chemical producers but look at the positives for the tank container sector.



Tankcontainer

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News - Dinges Logistics; Alkion Terminals; CS Leasing; Cassilon; Manuport Liquids; Boasso Global; Frans de Wit; Fort Vale; Intermodal Telematics.



München gladbach Anxiety and optimism were the themes at Munich's transport logistic fair.

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Carbon Capture and Storage:

Are there tank container opportunities in the emerging Carbon Capture and Storage market?





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Anxious times

It seemed that anyone who was anyone in the tank container world exhibited at the 'transport logistic' exhibition in Munich in May, which returned after a four year hiatus.

All of the top ten tank container operators had stands, with the notable exception of Suttons and the unsurprising absence of China Railway Logistics and Bulkhaul. The owned and leased-in fleets of these top ten tank container operators accounted for 71% of the global fleet of 801,800 tank containers reported in ITCO's latest global fleet survey.

The top nine global lessors all exhibited. Their fleets accounted for 83% of the global lessor fleet of 360,925 tank containers while all the major tank container manufacturers also had stands at

Despite the predictably upbeat public sentiment on the stands, the market backdrop is concerning. The chemical industry is the third largest industrial sector in the world - after energy and automotive - and one of the best lead indicators of economic growth. Chemical companies are obviously the largest customer segment for the tank container industry and most chemical producers signalled poor trading conditions in Q1.

BASF (the world's largest chemical company), Dow Chemical (the largest US-based chemical company), ExxonMobil Chemical (the tenth largest global chemical company) and Leverkusenbased Covestro all cited softer market conditions, persistently weak demand driven by lower consumer spending, 'considerable sales decreases' with lower prices, weaker industry margins and stagnating or reduced operating rates. China-based Sinochem, the world's second largest chemical company, made an operating loss.

Lower earnings means that 'measures to increase competitiveness are being implemented', which inevitably means that the search for cost reductions will intensify - bad news for some suppliers but potentially good news for others, including the tank container sector. Small lot size tank containers, as always, provide one solution for the tighter cash management that could follow as chemical customers move away from larger bulk parcels to smaller, more frequent, lot sizes. This may provide some upside for tank container operators, lessors and associated service providers.

Before we are all enveloped in gloom, there are, as usual, more positive points to note. Firstly, although the weak performance of the global chemical companies may summarise a world-view, the problems seems most acute in Europe, the Middle East and Latin America. Asia is particularly strong.

Secondly, specialty chemicals - the sort most dependent on tank containers - are usually consumed in essential consumer and industrial products so, while not immune to market corrections, their demand is more resilient

Lastly, after two record years, most participants in the tank container industry are in strong financial health so - beyond the market uncertainty - most of the problems are at the individual company level rather than with the industry per se.

One company has grown so quickly it is outstretching its finances; one may be affected by problems in another business division while some are struggling to maintain their competitiveness when faced with the current sharp correction in market demand and the cost base of competitors. Another is going through an unstable period as the business goes through a transition period.

The key question is whether this is a cyclical downturn or a sharp market correction driven by the rapid escalation in interest rates and energy prices.

Elsewhere in the market, there are growing concerns in some regions about a lack of availability of depot and cleaning space. This topic will be explored in the next issue with the recent merger of Quala and Boasso Global creating the only major player in this highly fragmented but critical service industry.

Consistent with a weaker market and the desire to reduce the average age of the fleet, the level of disposals of elderly or less well-specified tank containers has increased recently. 24,000 litre tank containers have, for some time, been regarded as no longer

The values for older equipment are invariably a function of new build prices and the value of stainless steel, which represents about a quarter of a tank container's price.

While new build prices have steadied after the slide in the second half of last year, some Chinese tank container manufacturers (and their customers) have benefited from the tussle between two stainless steel manufacturers - technical developments by one are being neutralised by price discounts by the other.

Rather than absorb the cost of storing empty tank containers in depots, some companies have significantly lowered their demurrage rates to encourage customers to retain equipment.

All in all, more than enough to worry about. ■

Leslie McCune, Editor



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Dinges Logistics conducts additional voluntary training for driving personnel

Good performance of employees is essential for any company. In this context, training plays a major role for all professional and age groups. For this reason, Dinges Logistics has organized various seminars for the professional drivers over the past few weeks. Their performance has a strong influence on the company's success, as uneconomical driving and high damage charges can be very expensive for companies.

In their daily work, professional drivers are constantly confronted with a wide variety of complex, often unpredictable situations, in addition to the challenges that their job entails anyway. Precise work, a high awareness of safety, and important background knowledge to make the right decisions are therefore enormously important. In order to create ideal conditions for this, Dinges Logistics held voluntary seminars that go beyond the driver training courses required by law. The training

prevention and economical driving and were each held for a full day with around 12 to 15 drivers. Two practical stations were set up for the damage prevention training - firstly, the station "Driving around obstacles in confined spaces" and secondly, the station "Reversing around corners using the passenger mirror". The tasks to be completed were evaluated and, in addition to this feedback, the drivers received recommendations for improvement to help them avoid potential damage in the future. Other content of this training included the correct ergonomic seating position as well as correct mirror adjustment. The other training measure focused on the topic of economical driving. Here, the drivers first drove a test route with the driving trainers without receiving any instructions. That was evaluated afterwards, the drivers received appropriate feedback and the negative points were worked through in a theoretical part. They then drove the test route again, but with specific instructions from the driving trainers. The training also focused on how fuel

courses cover the areas of damage

The training measures implemented

in a way that protects the material.

consumption and vehicle wear can be

reduced by driving with foresight and



are primarily intended to raise drivers' awareness of the relevance of safe and economical workflows. This should reduce incidents of damage and increase the profitability of the company by lowering costs. However, the training measures are not only accompanied by benefits in terms of safety and economy, but also sustainability aspects are favored, in particular through reduced fuel consumption and fewer incidents or damage in the company's operational processes. "By evaluating previous incidents and fuel consumption statistics, we were able to customize the training content and execute it accordingly. The drivers were able to notice the difference in results between driving without instructions and driving with professional instructions. In this way, the new knowledge they had learned was deepened and can now be applied in the future," explains Daniel Hirschinger, Fleet Manager at Dinges Logistics. He is satisfied with the result of the training measures and is ambitious about the future. "In the future, too, the focus will be increasingly on further training opportunities for our drivers. The aim is to identify and address any weaknesses and continue to optimize performance," Hirschinger sums up.

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- 4. Cross analytics: create extra value by combining data from different silos, eg. analyse unforeseen repair invoices by allocating them to regions, products or customers to discover problems and underlying root causes.



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Alkion Terminals steps into Isotank storage: very first Isotank storage platform in the south of France to be operational in September 2023



The terminal's success in gaining a permit approval for an Isotank storage platform is a real milestone. Alkion Terminal Marseille became the first location in the south of France to receive an authorisation from DREAL (the regional directorates for the environment, planning and housing) to open such platform.

Our Marseille terminal's solid expertise in liquid bulk storage, including difficult-to-handle chemicals, was a big advantage for the permit

approval and is a significant addedvalue to the project execution.

The new platform at Alkion Terminal Marseille is transformative for southern Europe and will propel Alkion into the European Isotank market as one of the few companies able to offer this forward thinking, safe and sustainable liquid bulk storage solution. Aurélien Jakalski, Sales engineer and Project Developer at Alkion Terminal Marseille explains:

"Such a platform does not exist in the south of Europe and it's a must have for all Isotank users. It will lead to more safety and reliability regarding the storage of products, but also to several supply chain optimisations and decreased CO2 footprint due to multimodal solutions.

For more information visit

www.alkion.com

CS Leasing appoints Joshua Shen as Marketing Manager



With further growth in the Asian markets, CS Leasing continues to expand its management team with the appointment of Chinabased Shen

With further growth in the Asian markets, CS Leasing continues to expand its management team with the appointment of China-based

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 EastAsia.

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 utilizing his industry expertise and global network.

Based in China, Joshua brings with him a track recordof 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 onvarious specialized and standard container projects during his time with CIMC Nantong."

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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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Cassilon empowered by Manuport Liquids



Manuport Logistics is proud to announce its recent acquisition of Cassilon, a specialised tank operator that provides transportation services for bulk liquids. This acquisition represents a strategic investment for MPL, as it expands its capabilities in the transportation of hazardous and non-hazardous bulk liquids.

The move further enhances MPL's end-to-end logistics services, providing a comprehensive range of transportation solutions for industries that rely on the safe and efficient movement of bulk liquid.

"The acquisition of Cassilon is in line with MPL's strategy to grow its business by expanding its expertise and geographic reach," adds Ken Joris, CCO at MPL. "MPL is committed to providing the highestquality logistics services to our customers, and this acquisition is another step in that direction. We look forward to partnering with Cassilon and using their expertise to drive growth and create value for our customers."

From now on, Cassilon will trade as "Cassilon Empowered by Manuport Liquids", but its legal entity name, tax number and other legal documentation will remain the same.

"We are excited to join forces with Manuport Logistics and become part of a larger, more diversified logistics company," says Sue Cassels, managing director at Cassilon Empowered by Manuport Liquids. "By combining our expertise in the transportation of bulk liquids with MPL's end-to-end logistics services, we will be able to provide our customers with even more comprehensive solutions and better serve their needs."

Cassilon's existing customers can expect the same excellent level of service they are familiar with, as the local management will remain a minority shareholder.

For more information visit www.manuport-logistics.com/en"



"We are excited to join forces with Manuport Logistics and become part of a larger, more diversified logistics company

Sue Cassels, managing director at Cassilon Empowered by Manuport Liquids

Tankcontainer DIRECTORY 2023/24 Edition The Premier Business Directory for executives, technicians, engineers and buyers in the International Tank Container Industry Tankconiaine Tankconis The 2023 issue of Tank Container Industry The 2023 issue of Tank Container Industry +44 (0) 20 85308322 WWW.TANKCONTAINERMEDIA.COM

Frans de Wit International B.V. acquired by Boasso Global



Frans de Wit are pleased to announce that Boasso Global has completed the acquisition of Frans de Wit International B.V., Moerdijk Tankcontainer B.V., Red Dot Services B.V. and Moerdijk Tankcontainer Trading B.V., collectively referred to as Frans de Wit.

Headquartered in Moerdijk, The Netherlands, Frans de Wit is a leading ISO tank services and trucking provider. Frans de Wit offers ISO tank repair & maintenance, storage, and other depot related services as well as an experienced fleet of 44 drivers providing ISO tank transportation in The Netherlands and other EU markets.

This strategic acquisition expands our service offerings in The Netherlands and surrounding markets through an increased driver base, the ability to provide loaded storage (~3,000 tank storage capacity of laden & empty tanks across 2 depots), and the addition of two repair & maintenance shops, one of which specialises in gas ISO tanks. Frans

de Wit's depots are located near the growing Port of Moerdijk and while also able to comfortably service Europe's two most active ports, Port of Antwerp.

For more information visit www.fransdewit.nl/en/home



Fort Vale announce new remote closure system



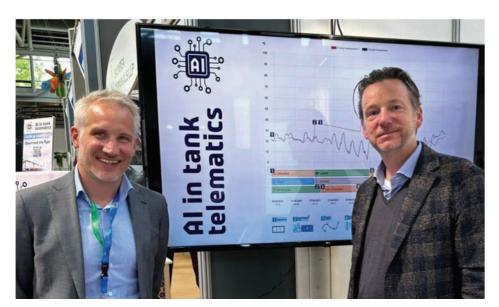
Fort Vale has announced a new remote closure system for this year. Building on Fort Vale's reputation for the highest safety standards.



NEWS NEWS

Peacock and IMT join forces

Peacock, a strong growing global lessor of tank containers, and IMT, the global market leader for tank container telematics, are pleased to announce their collaboration to provide innovative telematics solutions to Peacock's customers.



Peacock, with a fleet of 20,000 tank containers, has committed to installing IMT's telematics gradually on a significant base of its fleet, making it the first tank container lessor to do so without the direct demand from their customers. IMT has been the telematics supplier for Peacock for years, and this collaboration marks the next step in their partnership.

The added value for Peacock's customers is that they will be able to activate the telematics services of IMT at any given moment without any investment in hardware or installation and with no waiting time. This brings a lot of added value to the customer, as they can not only monitor their tank container and cargo instantly but, based on the started implementation of AI on the IMT platform, also the actual loading status, the moment of loading/unloading, the duration of heating, the moment the tank container is cleaned, and much more.

IMT is proud of Peacock's decision, as it shows that they are thinking with

and for the customer. By collaborating with Peacock, IMT is demonstrating its commitment to providing innovative and reliable solutions to the tank container industry.

"We are thrilled to collaborate with IMT to bring the latest telematics solutions to our customers," said Jesse Vermeijden, managing director at Peacock. "This collaboration marks a significant milestone in our partnership, and we are confident that our customers will benefit greatly from this added value."

"We are excited to work with Peacock and bring our telematics solutions to a broader base of their fleet," said Dethmer Drenth, managing director at IMT. "This collaboration is a testament to our commitment to innovation and delivering big data value to the tank container sector."

For more information visit www.intermodaltelematics.com
11th May 2023



Neele-Vat expands with the acquisition of Otentic Logistics and Otentic Customs in Oosterhout.

With this acquisition, Neele-Vat strengthens its position in storage and transhipment, VAL activities, customs activities and forwarding throughout Europe.

Otentic is a healthy company and active in storage and transshipment of raw materials for the food industry and storage of dangerous goods. They also have excellent knowledge of customs activities, fiscal representation and VAT legislation. The two companies will join forces, enabling them to offer an even better and broader service with more than 1,200 employees and 32 branches in 10 countries.

Neele-Vat offers a good European transport network, a strong position in the field of air and sea freight, more than 500,000 m² of storage capacity within the Benelux.

Cuno Vat, CEO Neele-Vat, is very proud of the acquisition of this wonderful company.

"The activities of Neele-Vat and Otentic complement each other well. We can now offer our customers an even broader service. And with the new location near our branches in Hazeldonk en Meer (BE) we have a good starting position to expand our services internationally. So that we can fulfill our ambitions to grow as a family business and to remain competitive."

Intermodal Telematics introduces AI in tank container business

The transition to artificial intelligence (AI) and big data is in full swing. Partly due to the global launch of ChatGPT, an advanced language generation model developed by OpenAI, a huge acceleration has taken place recently. The potential of AI, big data and machine learning, as well as the long-term and short-term benefits for the railcar and tank container market, is no longer a distant future but is happening rightnow.

Together with our customers, IMT is now working on appropriate Al business models. For clients, IMT develops algorithms and uses machine learning tools to generate meaningful insights and derivatives, generating a solid foundation of information.

Looking at the tank container and rail car industry a mere ten years ago, there were myriad labourintensive day-to-day tasks. Tasks that used to be a manual task for operators, which consumed a huge amount of time and effort to do correctly, and thus to manage as well, can now be supported by AI. The transition towards smart sensor technology has greatly alleviated pressure on operators, because measurements are taken and relayed automatically and continuously.

A telling example in the AI telematics field is the full-empty status of an asset. Sending the full or empty status directly to the TMS avoids manual input, increases the speed of information and gives an operator the ability to deploy the fleet even

more efficiently, through early signalling of available tank containers or rail wagons. With the Al tool we can help tank container operators to increase the utilisation rate of their fleet. We turn raw data into useful information, without any effort required from the customer. With this we can generate more useful alert notifications, provide reliable and fast status changes, and increase overall visibility and efficiency.

A huge potential for operational efficiencies and cost benefits is proven by applying our telematics solution. Today, IMT is proud to present the next step: the introduction of Al in telematics. More information on Al in telematics is available on the IMT website.

For more information visit www.intermodaltelematics.com/ artificial intelligence tankcontainer





TANK CONTAINER MAGAZINE

LEADING lights

Hans Augusteijn, President of market leader Stolt Tank Containers, talks to *Tankcontainer Magazine* about sustainability, strategy and a strong team

TCM: What have been the surprises in your first year leading Stolt Tank Containers (STC)?

knowledgeable team. What I was surprised about was the great feedback we received from our customers working with the team in STC. Last year - when I joined STC - we had the most unusual time when it comes to moving our tank containers, yet despite bottlenecks and congestion in the supply chain I was amazed at how well the team worked together with customers to keep the cargo moving. When I visit customers across the globe, this is the overwhelming feedback I get, that we are able to consistently deliver a reliable product with a very personal touch. That strong teamwork, and the great culture in STC, has been my biggest surprise.

TCM: What is STC's strategy?

OPERATOR

TANK CONTAINER MAGAZINE

HA: Our strategy is to build on our strengths - we have a global team and presence and a tank container fleet that suits our customer needs. We believe that with that team and reach we can continue to work on what our customers tell us they would like:

- 1. To work closer with them. As we have seen that supply chains are very volatile, many of our customers are looking for a partner that can work closely with them and stick with them. We have been around for 40 years and with that experience we believe we can also long term work closely with our customers to give them more predictability in their logistics;
- 2. We are working hard on digitising our customer experience as with any industry, logistics is

changing quickly. That means that our customers expect in one click to be able to book a tank container, have an accurate prediction of when their cargo arrives and find a quote online. We will also continue to integrate our systems with those of our customers:

3. Lastly, our customer want to know that they can move their cargo efficiently, reliably but also sustainably - so we will continue to give them that insight on how we minimise the impact on the environment as we move, heat and clean tank containers for them.

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

HA: The key trends in the tank container market are very much around having a reliable offering for the customer, digitising the business and focusing on sustainability

Aside from that, I think there is a bright future for the market. If you look at the efficiency that tank containers have versus other modes of transporting liquids, I think there is a lot of potential for conversion from bottles, drums, flexibags and small parcels to tank containers. It is clear that compared with other modes the ISO tank container enables more efficient and sustainable transport. As part of the wider Stolt-Nielsen group we work across different modes of transportation and storage for liquids and I see a bright future for the tank container

TCM: What has been the lasting impact of coronavirus on the tank container market?

HA: It is clear that the coronavirus pandemic made our





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customers even more concerned about reliability and a stable supply chain. It also shows that partnerships are absolutely key in working together in the supply chain. As a result, we have seen that we now work even closer with our customers, our partners and vendors than we did before the crisis.

Secondly, it shows that without digital it is really difficult to manage your supply chain. I think the trend to develop better track-and-trace capabilities online, and more supplier and customer integration on the digital side, will continue and is a result of the pandemic and the supply chaos last year.

I am very proud that during the pandemic we did not miss a beat when serving our customers. Yes, we experienced congestion and delays but we have not had a customer stop their plant or run out of feedstock, something that we saw frequently elsewhere. That is a huge tribute to the team!

TCM: How does STC measure sustainability?

HA: Sustainability is very much about discussing the subject with our customers and partners in the supply chain. Our customers look at a variety of Environmental, Social and Governance (ESG) elements, but clearly Scope 3 emissions are high on their agenda.

Being able to measure and act on those emissions - and seeking better alternatives with customers and our partners - is the key to making a meaningful impact to lower Scope 3 emissions. The bulk of these emissions come from the trucks and vessels we use together with partners and until alternative fuels are available at scale we need to optimise and seek the most carbon efficient way to move each tank container.

TCM: Why is owning a depot network important?

HA: It allows us to offer a full end-to-end service to our customers and, at the same time, we can safeguard the quality and our high standards when it comes to safety and sustainability. Our depots in China and Mumbai are a perfect example of this.

Recently, the Zhangjiagang depot in China celebrated Depot Safety Day and celebrated an amazing milestone: 2,500 days without reported incidents, a fantastic achievement! To put that into perspective, that's nearly seven years without reported incidents. At STC, our greatest priority is ensuring the safety of our people and the environment and we are progressing to reach our goal of zero incidents both on the road as well as across our depots.

Zhangjiagang depot is our largest Asian depot with heating, storage, cleaning and repair activities taking place and our colleagues there do great work on sustainability by refurbishing over 700 tank containers a year. With colleagues constantly handling heavy tanks and specialised machinery, it's important that every one of us understands our responsibilities for ensuring a safe work environment for ourselves and for our colleagues.

On 18 May 2023, the SPS Mumbai depot in India became Stolt Tank Containers' first facility to adopt full solar energy. The depot's tropical location, which benefits from 9-10 months of sunshine a year, presented a perfect opportunity to go greener via this renewable resource. This switch is expected to make the depot electricity-neutral.

Mono PERC solar panels covering the depot's roof are capable of generating 170 kWp (kilowatt 'peak' power output), which is converted into Alternating Current using two Growatt inverters. This is enough to fully power every piece of depot equipment at any given moment. Given that it is 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 government-installed bi-directional meter measures both this and the amount drawn from the grid at times when solar generation is not sufficient.

Now that SPS Mumbai has largely switched from drawing from the grid to contributing to it, the surrounding community benefits from 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. And this is just the start. A similar installation at the Kandla depot is due for completion in 2024.

Biography

Hans Augusteijn is 45-year old Dutch national. From a young age he has been passionate about transportation and logistics. For that reason he took a Bachelor in Logistics from the National Transport Academy in Venlo and a Master of Business Administration from the Nijmegen University, both in the Netherlands.

After graduating, he was a management trainee at P&O Nedlloyd, an Anglo-Dutch container line which was later bought by Maersk. In container shipping he worked in various roles ranging from Sales, Procurement and Finance. In his most recent role in Maersk he ran the global operations for shipping and logistics, which encompasses intermodal, depots and warehousing.

Hans has lived and worked in the Netherlands, Canada, Switzerland, India and Denmark. In his spare time he tries to spend time in Italy, the country his wife is from and he enjoys running, cycling and skiing. ■

Carbon Capture and Storage: a tank container opportunity?

Will the emerging Carbon Capture and Storage (CCS) market create significant opportunities for T75 cryogenic tank containers carrying carbon dioxide? Leslie McCune, an independent tank container market expert, explores the potential.

Carbon Capture and Storage (CCS) is a process for reducing the undesirable carbon emissions that play such a critical role in global warming.

The process is relatively simple - after capturing the carbon dioxide (CO₂) produced by large-scale coal and natural gas-fired power generation plants, or by industrial activity, such as steel or cement producers, the carbon dioxide is compressed and transported in pipelines, road transport or ships to a site for storage, where it is injected into rock formations deep underground for permanent storage.

Carbon Brief estimated that around 22% of global carbon dioxide emissions come from the production of goods that are, ultimately, consumed in a different country. Is there an opportunity, therefore, for the intermodal transport of CCSderived carbon dioxide in the \$110,000 T75 cryogenic tank containers that would be technically required to move the carbon dioxide?

CO₂ emission sites with water access

In the region covering the European Economic Area and the UK, 85% of carbon dioxide emissions originate from sites that are less than 50 kilometres from a river or coast. Where these emission sources are physically located on a river, or by the sea, it would be reasonable to expect that it would be more competitive to transport the carbon dioxide by ship or barge to its ultimate storage location.

The transportation of liquid carbon dioxide by ship has a number of similarities to the under pressure shipment of LPG and LNG

so moving the large quantities of carbon dioxide involved with CCS over long distances would be viable and present few operational challenges for shipping lines, ports and terminals.

Liquid carbon dioxide can only exist at the combination of low temperatures and pressures that exceed atmospheric pressure so it therefore needs pressurised transport, as used by LPG carriers.

Liquefaction occurs when carbon dioxide is compressed and cooled below -31°C.

INEOS demonstrates CCS value chain

In a world first breakthrough in March, INEOS's Project Greensand demonstrated that CCS can form part of a new value chain. Carbon dioxide from Belgium was successfully captured, transported crossborder and stored offshore - 1,800 metres below the seabed - in the depleted Nini oil field under the Danish North Sea.

INEOS and their partner Wintershall Dea head a consortium of 23 organisations involved the project, which aims to

safely capture and permanently store up to 8 million tonnes of carbon dioxide each year, 40% of Denmark's total emission reduction target. The European Commission estimates that the EU will need to store up to 300 million tonnes of carbon dioxide a year by 2050 to meet its climate goals.

Small lot deliveries can be problematic

However, as is the case with major refineries, large scale CCS projects may not have receiving facilities for small lot sized deliveries of carbon dioxide in tank containers, road tankers or trailers. Longer term, it is conceivable that smaller scale emitters will be obliged to capture their carbon dioxide emissions and deliver them in liquid form to a storage facility as part of their license-to-operate. Without subsidies, incentives and/or technology breakthroughs, this is likely to add considerable costs to many smaller companies. Investment would be required in exhaust gas carbon dioxide scrubbing and capture (or in the direct capture of carbon dioxide from air) with additional

investment needed for the liquefaction process.

Where a carbon dioxide emission source is not adjacent to water, other options must be considered. For commercial-scale volumes of liquid carbon dioxide, these include rail tank cars, road tankers, trailers and tank containers.

Although road tankers and rail car options typically cost more than twice as much as pipeline deliveries - which have been used for transporting carbon dioxide for three decades - the additional cost may have to be borne by smaller emitters having no access to a carbon dioxide pipeline.

Road tankers preferable

Where there are roads, road tankers are likely to be more competitive than tank containers for short-to-medium distances provided the delivery load and discharge points are predictable and there is no requirement to use the road tanker for short-term storage. When load and discharge points may be altered during the course of the transit, or when discharge delays may be lengthy, the flexibility of tank containers becomes

Intermodal CO₂ movements limited?

While the intermodal movement of carbon dioxide in tank containers may be considered for longer distances, this is likely to be a relatively limited market, not least because these movements would have a heightened but manageable risk of boil-off and pressure escalation as a result of the transfer of ambient heat from the environment through the wall of the tank container.

Ocean routes bring with them the risk of lengthy delays in the event of disruptions by shipping lines, ports and terminals. Fragile and expensive cryogenic tank containers are often weakened during sea transport due to rough handling during port operations. Serious impacts can severely damage the tank's vacuum insulation, resulting in repairs which can take several months in the worst case.





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Short transit times desirable

As with LNG, short transit times are desirable for the movement of carbon dioxide - the challenge is to deliver the coolest gas possible in the quickest time although the quality deterioration that takes place in cryogenic gases over longer journeys may be less of an issue for CCS-derived carbon dioxide given the gas will simply be injected into rock formations.

An efficient cryogenic supply chain therefore involves the maximum quantity of liquid gas transported in the shortest transit time. For example, supplying carbon dioxide in T75 tank containers from Spain, instead of the Netherlands, can reduce the average trip loop time from 37 days to 8 days.

Often, there are only a few days to bring cryogenic gases from source to the end user. Minimising this time is one reason why some of the dedicated cryogenic depots have depot storage tanks to speed up the loading process. Tank containers can be loaded directly on-site, saving time and money by not having to load at the production facility.

Shipping hub opportunities

Away from CCS, one market niche that may open up more for T75 cryogenic tank containers is the delivery of carbon

dioxide and nitrogen at small shipping hubs that have repair and inspection facilities e.g. Algeciras, Spain. At these ports, carbon dioxide and nitrogen are used for inerting and post-inspection refilling.

When, for example, a carbon dioxide-carrying ship is in dock for repair or regular inspection, its carbon dioxide cargo tank is initially simply purged with air for safe working. However, for the first loading after docking, the cargo tanks have to be fully dried, purged and filled with carbon dioxide. This is often delivered by tank containers at smaller, more isolated ports. However, this opportunity for tank containers is restricted to small, limited access ports as major chemical hub ports such as Singapore, Rotterdam and New York have piped-in inerting products and have easy access for road tanker deliveries.

Nitrogen is also occasionally delivered by T75 cryogenic tank containers for LNG-fuelled ships - inerting the cargo tanks with liquid nitrogen is part of the regular mandatory maintenance requirements for these vessels.

Conclusion

In macro terms, the performance of the cryogenic gas market is closely linked to the development of specific industry sectors. Where there are many construction projects, for example, argon and nitrogen consumption increases because these air gases are needed for construction work like arc welding. Apart from CCS, new carbon dioxide demand will continue to emerge in its traditional markets e.g. where there are new or expanding bottling companies.

Despite the projected massive scale of the potential CCS market, opportunities for the intermodal movement of carbon dioxide in T75 cryogenic tank containers seem, however, to be very limited. There would be limited dependence on the intermodal movement of the gas.

Other carbon dioxide transmission and transport modes appear to be more practical and cost effective for the CCS market and there seems little supply chain logic on which to base an investment case for \$110,000 carbon dioxide cryogenic T75s for this market.

Where practical and permitted, direct pipeline connections between large point source emitters and underground or undersea storage sites will always be the most cost competitive - and, arguably, the lowest emitting - method of moving captured and compressed carbon dioxide.

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Münchengladbach

It has been four long years since the last transport logistic exhibition in Munich and many were glad to be back.

Tankcontainer Magazine looked beyond the glossy booths, corporate pride and currywurst.

From 9-12 May, the Munich mega-event that is transport logistic had much to talk about with a key focus on global supply chains, digitalisation and sustainability.

2,320 exhibitors from 67 countries attended the exhibition (2019: 2,374 exhibitors from 63 countries) with more than 75,000 visitors from over 120 countries (2019: 63,893 visitors from 125 countries). The share of international visitors rose to a record high of over 50%, confirming its status as one of the world's leading trade fairs for logistics.

The top ten exhibitor countries after Germany were the Netherlands, Italy, Belgium, France, Austria, China, Turkey, Spain, Poland and Great Britain.

The Village People

Many were destined for the International Tank Container Organisation (ITCO) Tank Container Village, which featured 68 exhibitor stands, giving ITCO member companies, business representatives and industry stakeholders the opportunity to discuss the latest tank container trends and events in a dedicated environment.

Of the 240-plus global tank container operators, all of the top ten operators were exhibiting, with the notable exception of Suttons and the unsurprising absence of China Railway Logistics and

Bulkhaul, whose latest financials reported a record Profit After Tax of 17% (£48 million) and an EBITDA of 27% (£74.8 million) on revenues of £281 million.

The owned and leased-in fleets of these top ten tank container operators accounted for 71% of the global fleet of 801,800 tank containers in ITCO's lates global fleet survey.

Of the 38-plus tank container leasing companies, all of the top nine lessors exhibited. The fleets of these top nine lessors accounted for 83% of the overall global lessor fleet of 360,925 units.

All the major tank container manufacturers exhibited, including pressure vessel manufacturer GasCon, based near Cape Town, South Africa.

Talking Points

Despite the outward show of optimism, the overall mood in private was of concern for how this year might develop. The restrained elation of the results over the past two years began evaporating in the second half of last year as chemical production in Europe - the second largest chemical manufacturing region in the world - rapidly slowed as energy prices and inflationary pressures hit consumer spending. **Germany**, the so-called "factory of Europe", has officially **slipped into recession**.





Tank container activity is strongly correlated to specialty chemical production, which accounted for 28% of Europe's chemical sales of €594 billion (\$637 billion) in 2021, so those tank container players that were more exposed to the European market - such as VTG - have suffered.

Importantly, any sustained, substantial trade imbalance between specialty chemical exports and imports in the major regions - as is now being experienced in Europe - has **global consequences** for the tank container industry as it affects fleet utilisation, repositioning costs and financial returns.

More positively, other regions were more **robust.** Tank container activity in China is growing strongly, with swap bodies continuing to be in high demand, while activity in the US was generally described as supportive, especially for **T75 cryogenic LNG** (Liquefied Natural Gas) tank containers. There has not yet been as widescale an adoption of this tank container type for LNG in Europe, where attempts by one company to develop cryogenic rail cars are proving technically problematic.

There is, however, a flow of cryogenic units to Australia, where the main brands of heavy duty opencast mining trucks use LNG as a substitute for diesel to reduce fuel costs and greenhouse gas emissions. Natural gas-modified engines are reported to have an extended life due to 15% better thermal efficiency compared with equivalent diesel engines, according to analytical services provider Deloitte in Mining Weekly.

Companies have worked hard at increasing their tank container **utilisation** despite the return of older equipment, often deployed for temporary static storage, while newer tank containers have been returned because they are simply surplus to requirements - low demand in certain market segments, high demurrage bills and the return of better functioning supply chains requiring fewer tank containers to move the same volumes have all encouraged returns. Disposal rates have increased.

Peacock, now the fifth largest lessor in the world with a growing fleet of over 20,000 tank containers, announced at the show a collaboration with IMT, reported by an independent advisory firm to be the global market leader for tank container **telematics**.

The lessor will progressively install IMT's telematics on its tank container fleet. This will give customers the opportunity to simply turn on the pre-installed telematics without having to make any commitment to hardware investment. Trackable tank container assets mean lower insurance premiums while IMT's telematics enable the remote monitoring and operability of tank containers and their cargoes.

A recurring concern at the show was the capacity shortage at tank container **depots** and cleaning stations. This may become a **structural constraint** that could limit the rate of growth of tank container usage as it is creating operational difficulties, and therefore extra costs, for the industry. The issues surrounding tank container depots will be highlighted in a special feature article in September's issue of *Tankcontainer Magazine* - the fundamental question is: "Will the growth of the tank container industry be limited by the capacity limitations of its essential depot support infrastructure".

Several operators, of course, have their own network of tank container cleaning and repair depots. Market leader Stolt Tank Containers, for instance, has a worldwide network of 22 depots. Similarly, through its subsidiary cotac, Hoyer operates its own tank cleaning stations while Intermodal Tank Transport (ITT), the Latin American, US (and European) operator, uses its own depots in the Americas.

The merger on April 3, 2023, of Quala, the leading provider of tank cleaning and maintenance services, and Boasso Global, the leading provider of tank container depot, maintenance and transportation services, has created the only major player in this highly fragmented but critical service industry.

The Boasso stand at the *transport logistic* exhibition was busy and many expect the new owners, KKR (a leading global investment firm), to leverage **acquisitions** to stretch its geographical reach, which is currently focused on the US, Canada and Europe. Acquisitions - rather than building on new sites - seem the likely growth route for Boasso/KKR given the acute lack of land for tank container cleaning and storage operations in several of the main global tank container hubs. Some Asian sites are, however, being decontaminated, offering the opportunity for tank container cleaning, maintenance and storage operations.

From a commercial perspective, the sentiment at the show was that the acute fall in tank container **prices** and **per diems** in the second half of last year has slowed. The benchmark prices for T11s noted in *Tankcontainer Magazine's* 'Review of the Year 2022' can therefore be regarded as still being broadly valid, although some tank container prices have fallen as result of a tussle between two stainless steel manufacturers - technical improvements by one are being neutralised by price discounts by the other.

Quality of trade journals varies

The exhibition also highlighted the differences between the various publications covering the tank container market. Some are stretched across a diverse number of bulk liquid markets, such as terminals, ports, shipping, road tankers and storage terminals. Others cover a wide spectrum of IBCs/FIBCs, road tankers and bulk logistics while some are just a collection of press releases and offer no added value in terms of tank container insights or valuable market intelligence. Another is well-respected but has to cover the vast number of hazardous cargo developments, and its new owner is driving it in the direction of regulatory compliance. None have their own dedicated, in-house tank container market expertise and their output often reflects this.

Tankcontainer Magazine, on the other hand, is the only trade journal **exclusively dedicated** to the global tank container industry. It carries the usual press releases but, more importantly for readers, has a 10-year record of genuinely independent and authoritative tank container features, market analysis and expertise.

No other journal has provided readers with, for example, an annual in-depth tank container market review, offered insights into how lease rates are calculated, provided a Porter 'Five Forces' analysis of the industry and considered the structural and company changes that could place in the tank container sector in the next five years. Only *Tankcontainer Magazine* regularly provides accurate information on benchmark prices, market dynamics and trends.

Significant dates

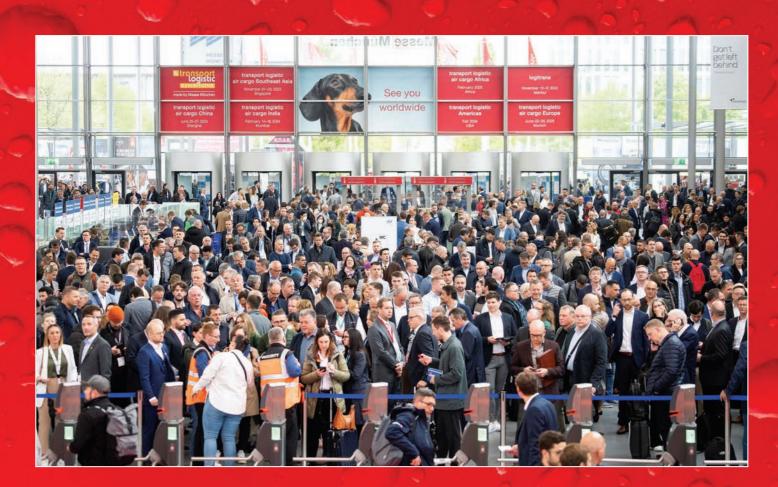
Significant dates in the tank container industry's diary include the ITCO Members Meeting in Amsterdam (15-16 November 2023), Transport Logistic China 2024 in Shanghai (25-27 June 2024) and, on the distant horizon, the next *transport logistic* exhibition in Munich (2-5 June 2025).

MARKET

utransport Munich 2023

Over 75,000 visitors from 120 countries attended the recent Transport Logistic exhibition

Many thanks to all Members, Exhibitors, Sponsors and Visitors for supporting the Village and contributing to its success. Feedback has been positive, but we are always looking for suggestions about how to improve and develop arrangements in the future. Special thanks are extended to CIMC who sponsored the Welcome Reception on the first evening; and to Perolo for sponsoring the Wine Tasting evening on the second day.

















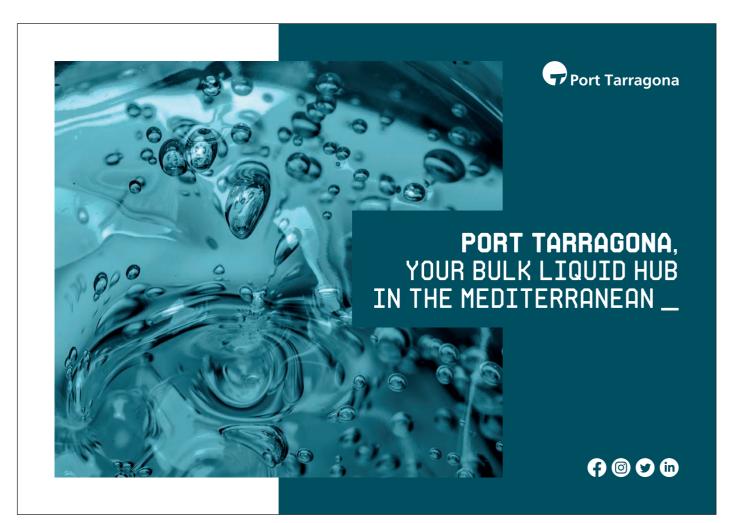


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- Produced quarterly 'Middle East Tank Container Market Review'
- Founding Editor, Tankcontainer Magazine

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Scrapping made simple

by Brian Dixor

Netherlands-based Rotterdam Metal & Container Recycling has the knowledge and network to take the many headaches out of scrapping end-of-life tank containers

Tank containers provide a highly efficient and safe means of transporting bulk cargo via sea, road and rail. Capable of handling a broad range of goods, from liquid foodstuffs to hazardous chemicals and gases, they are understandably built with dexterity and longevity in mind in order to withstand the bumps, shocks and rigours of long-distance multimodal movements. However, few things in life last forever and even these units, with their sturdy constructions, only have a certain lifespan. At some point they need to be scrapped.

But given their size, weight and intrinsic value, tank containers are not the sort of thing you can simply throw away like an old piece of fruit. Instead, you need an expert with the technical and logistical abilities to take over the process, which is exactly where a company like Rotterdam Metal & Container Recycling steps to the fore.

More and more tanks are scrapped

Operating two tank container scrapping yards located in Rotterdam and Antwerp, the company was founded in July 2021 by Arjan Struijk, who has more than 25 years' experience in the field, having previously run a different scrap metal business of which he remains co-owner. "In the past I did everything, buying from local people and major demolition projects, and one item was the recycling of tank containers," he says.

At first, this particular activity grew very slowly and initially involved the scrapping of no more than fifty or so tank containers a year. However, the past two decades have seen the market grow substantially. Last year alone, Rotterdam Metal & Container Recycling scrapped 1,000 units, with tank container scrappage now accounting for 70-75% of its business. The expectation is that even more units will need to be scrapped and recycled in the coming years.

"The total number of tank containers used 25 years ago was not very big," Struijk continues, explaining that back then the total global fleet was only around 200,000 units. Now, though, that figure has risen five-fold, with industry statistics suggesting that one million tank containers of various designs and capabilities are currently in service around the world. Given that each of these units has a typical lifespan of 20-25 years before such issues as cracking, barrel pitting and general wear and tear make maintenance uneconomical or simply impractical, this means that there are now and increasingly large number of units reaching the end-of-life stage and therefore requiring scrapping.

International reach

While Rotterdam Metal & Container Recycling may be headquartered in the Netherlands, its reach is far wider. Buying end-of-life units from all the major tank container operators and lessors, it regularly ships in tank containers from Germany, France and the UK in addition to dealing with sellers located further afield, such as India. "The most expensive cost is transportation because we collect the tank containers from many different depots," he says, explaining the need for scrapping yards in the major European ports of Rotterdam and Antwerp.

"When the tank containers are in the Antwerp area, we ship them to the Antwerp location and when they are in Rotterdam to the Rotterdam location," he continues, explaining that units collected from France will typically be sent to Antwerp while those from Germany will be sent to Rotterdam. Those from the UK can be handled by either yard.

"We don't sell for the second-hand market," Struijk stresses, stating that all units received will be scrapped and their component parts recycled. This is an important point as companies selling off their end-of-life units do not want to see them back in circulation for business, legal and safety reasons. "When they say it's a total economic loss, we have to issue a certificate that the tank container is scrapped and not reused again," he says.

Sourcing the units

The scrapping process begins with purchasing the units to be recycled. "I have a network of companies and they come to me when they have tank containers, but also I contact some companies myself, so the trading is from both sides," he says, revealing that the company operates a range of different contracts and agreements with customers depending on what best fits their particular needs and operational set-ups. With some companies, the arrangement might see the customer contacting Rotterdam Metal & Container Recycling when they have units to be scrapped. They are then given a review of what was scrapped and the resultant value of that scrap, with the prices and payments settled on a one-off or monthly basis.

Other customers might prefer a contractual arrangement whereby they send the company regular batches of end-of-life tank containers two or three times a year. "They send a list of









You have to understand the stainless steel market and you have to have an understanding of the logistics involved in collecting units and a lot of scrap metal companies are not interested in all that.

Arjan Struijk, Founder, Rotterdam Metal & Container Recycling

tank containers with a lump-sum price for everything. This can be 100 pieces or 50 pieces or whatever," Struijk reports, explaining that a price is then agreed and the units released for collection. "So there are different ways depending on how the companies work," he says.

Whatever the arrangement, every tank container - with just a very few exceptions for those that have been involved in an incident - must first be certifiably cleaned before collection can take place. After all the documents have been completed and exchanged, the tank containers are then transported by one of Rotterdam Metal & Container Recycling's longstanding transport partners to the appropriate scrapping yard, where they are then weighed and more documents issued.

Tanks stripped bare

Once unloaded, the tank container is first stripped of its aluminium cladding, walkways and ladders using a crane and sorting grapple. Next, the unit's foam or mineral wall insulation is removed to leave a 'naked' tank container consisting of a stainless steel barrel housed within a steel frame that itself is then removed using a crane-mounted shear.

The next step, Struijk explains, is to weigh the different materials before the stainless steel tank container is cut up into smaller sections of around 1,000 mm by 500 mm for onward transport to one of numerous foundries around the world, whether in Belgium, Germany, Finland, Spain, Taiwan, China or India.

Once smelted down, the resultant aluminium, steel and stainless steel can then be reused to make anything from kitchen foil to car components and even certain types of multimodal equipment for the transport of bulk liquids. "I know for sure that new tank containers are made with the stainless steel scrap," he says.

As for the insulation, that cannot at present be reused due to the presence of impurities, ranging from rust and dust to sand. Consequently, this part of the tank container will be sent to a power station where it will be burnt for energy reclamation. "We did some investigations and research for the foam to be reused again but it has too much contamination," he says. Overall, only a "very small amount" of a scrapped tank container will end up as landfill, with Struijk calculating that 99.5% of every unit received will be recycled or reused in one way or another. This, he notes, is something that will likely be of increasing importance to customers given their ever greater focus on Corporate Social Responsibility and the growing need for environmental impact reports.

In good hands

While Rotterdam Metal & Container Recycling is certainly not the only company able to scrap tank containers, Struijk is well aware of its uniqueness. "Of course, there are scrap metal companies that buy tank containers occasionally but it's not their main focus," he says. "You have to understand the stainless steel market and you have to have an understanding of the logistics involved in collecting units and a lot of scrap metal companies are not interested in all that."

As well as undertaking the dismantling of units itself (something that is not always the case with less specialised firms), Rotterdam Metal & Container Recycling operates a well-established network of transport partners, meaning an end-of-life tank container can typically be collected for scrapping within five working days.

Moreover, its agility and flexibility is backed by its respect for its customers' reputation and integrity. For instance, should a damaged tank container need to be transported, as occasionally happens, the unit will be fully covered from view, something that is no doubt good news to any company keen to protect its brand image.

TANK CONTAINER MAGAZINE



RUSSIAN TANK CONTAINER MARKET

UNDER SERIOUS PRESSURE

by Eugene Gerder

The Russian tank container market continues to be under serious pressure due to ever-tightening sanctions. This has caused a deterioration of the economy and in the overall transport sector of the country.

The imposition of unprecedented Western sanctions led to a substantial transformation of the Russian tank container sector. While most of the leading local operators have been able to stay afloat and avoid bankruptcy, the situation since 24 February 2022 is deteriorating as the isolation of Russia is grows. The planned re-orientation towards Chinese and Indian support has not yet brought any meaningful results.

Nadya Tulupova, head of sales of Baltica-Trans LLC, one of the leading tank container operators in Russia, notes that tank container transportation continues to decline in most foreign trade directions although there is some growth in the domestic market.

Nadya Tulupova comments that the main decrease is currently seen in the North-West of Russia due to an unprecedented drop in trade volumes with the European Union (EU) and the reduction in ship calls by global sea carriers. This is only partially compensated by an increase of traffic in Southern and Far East directions.

In the meantime, the demand for equipment still remains high due to considerably extended overall round-trip times and bottlenecks in local infrastructure, which appear unprepared for such changes.

Russian players replacing foreign operators

Domestic Russian players are substituting foreign operators by investing in local shipping companies and purchasing their own fleet of tank containers. Despite the current high demand for equipment, the tank container leasing market in Russia since 2022 remains quite slow due to ongoing local re-arrangements that foreign lessors are putting in place.

Other leading Russian experts in the field of tank containers have confirmed the growth in demand for tank containers in the domestic market, which is a result of the suspension of their supplies from abroad.

Sergey Afanasyev, a well-known Russian expert on tank container market confirmed that starting from the Spring of 2022, the willingness of leasing companies to quote for business has significantly decreased.

Demand for local Russian equipment increased significantly

He notes, "At the same time, due to a number of circumstances but primarily the lengthening of transportation routes, Russian tank container operators were forced to refocus on the purchase of equipment for their needs. The demand for tank containers in Russia in 2022 has therefore increased significantly and this trend continues.



REGIONAL

In the Russian market, T11 tank containers with a volume of 26 m3 traditionally attract the greatest demand and are regarded as the "locomotive" of the market. In addition, buyers order smaller tank containers for high density cargoes, as well as specialised equipment designed to transport chemicals such as yellow phosphorus, hydrochloric acid, hydrogen peroxide, chlorine and ethylene oxide".

Have most foreign operators left?

Some analysts, however, retain some optimism about the prospects for the Russian market. Kirill Boltaev, General Director of Russian Tank Container World news agency, said during the TransCont conference in Moscow that despite the ever-growing pressure on Russia from West, most foreign operators have not in fact left the Russian market and do not have such plans at present, being ready to continue their operations.

According to Boltaev, most foreign players that provided importexport services involving Russia's tank container market prior to 24 February 2022 continue their work. "Only a few foreign companies have finally left," he said.

Boltaev also added that companies such as VTG, NewPort and Bulkhaul have withdrawn their fleet from the market, although this has not had a major negative impact on it as their share was relatively small.

More importantly, according to Boltaev, some major players have, in recent months, reduced their presence in Russia by almost a third.

He also added that some large tank container leasing companies still continue to work in Russia. Some analysts believe that those foreign players deciding to stay in Russia may hope to fill the niches of rivals that have left the country, as has happened in the Russian banking sector.

Spares a problem

Boltaev and other interviewed industry analysts have also confirmed that the lack of supplies of new tank containers to Russia, together with a shortage of tank containers in the local market, currently remains the most acute problem of the industry.

There are also serious problems with the delivery of spare parts to Russia, and a rapid escalation of prices. As a rule, domestic producers are still unable to replace the majority of imports, both in terms of quality and pricing.

In recent months, some domestic Russian companies have presented prototype tank containers to the market. However, for a full transition to domestic production, Russian state support is needed, including simplifying the certification procedure for components and finished products.

According to experts, Russian enterprises can now only produce T50 gas tank containers made of black [i.e. non-galvanised] steel for the transportation of liquefied hydrocarbon gases.

Lack of availability of sheet

At the same time, according to Boltaev, cold rolling - which is necessary for the production of tank containers - is only carried out at two plants in Russia, in Yekaterinburg and Kemerovo.

One of the constraining factors for the production of tank containers in Russia is the lack of availability of the necessary metal sheet on the domestic market. For example, to build the most popular tank container model, T11, wide-rolled stainless steel is required. Since Soviet times, this material has been purchased from foreign suppliers, particularly Finnish, but most supplies are currently suspended. Therefore, almost all the Russian fleet of tank containers is of foreign origin.

While the overall demand for Russian chemical products and cargoes remains generally high in the world market, the imposed sanctions resulted in the loss of the most important and profitable markets for both Russian shippers and carriers and put the industry back several decades.

Sharp drop in demand

The current crisis is also reflected by a sharp drop tank container demand from such major Russian chemical regions as Dzerzhinsk, Novokuibyshevsk, Salavat and Nizhnekamsk. Most of them were traditionally focused on Western markets, particularly the EU, but now experience serious problems with export sales.

At present, Russian chemical products being delivered in tank containers are mainly going to China, India and Turkey. These export markets are replacing former markets in the US and Netherlands. The prices having to be offered by Russian exporters are significantly lower than those that were achieved with former EU customers.

Currency difficulties

In case of India, some analysts consider it as a large market that can accumulate various types of chemical products delivered in tank containers from Russia. However, its potential has not yet been fully implemented. This is partly due to payment issues as Russian tank container businesses are still not ready to receive payment in Indian rupees, preferring more commonly tradeable US dollars and Euros. This is despite numerous statements from the Russian authorities of their intention to switch to payments with the national currencies of India and China.

According to Boltaev, prior to 24 February 2022, the main volumes of import-export operations in the Russian tank container market went through the northwestern corridor, which had been successfully developing for many years. That was a result of the establishment of new high-tech terminals, dealing with various chemical products. Now cargoes have turned to the east, although there is currently a serious lack of infrastructure for such deliveries - building this will take considerable costs and time

The current crisis inevitably puts an end to the earlier announced plans of the Russian state and operators for the development of a servicing sector for tank containers.

Cleaning and M&R inadequate

Historically, Russia lacked cleaning stations and Maintenance & Repair capabilities for tank containers while the existing facilities do not always meet the environmental safety requirements for such services. Even before 24 February 2022, the volume of state support in this segment was small and it is unlikely that situation will significantly change until the end of the current year.

MAKE SMART CHOICES WHEN CARRYING LIQUIDS

When it comes to carrying your valuable liquids, it should be a no-brainer.





International Tank Container Organisation (ITCO) **Reduce, Re-use, Recycle with an ISO Tank**





"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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