

## TECHNOLOGY

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## LEASING

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## LEASING

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## REGIONAL FOCUS

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# Tankcontainer

## MAGAZINE

Volume 5 | Issue 4 | December 2018

Goodrich Maritime  
MD R. Gopal  
shares the firm's  
growth story





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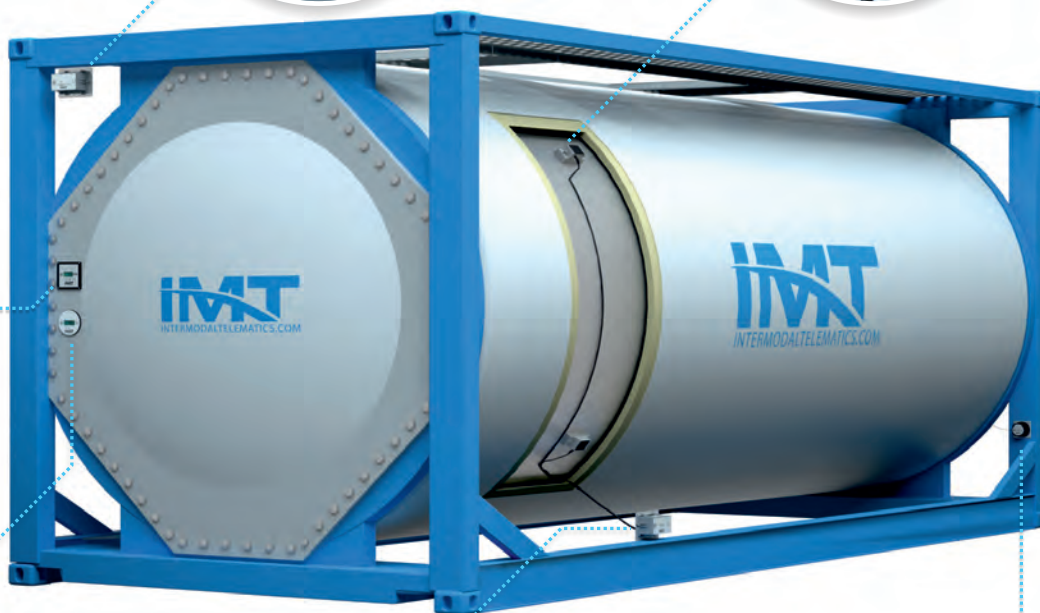
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## NEWS

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THIELMANN is pleased to announce the acquisition of CONTEK IBC-Service GmbH. CONTEK's knowledge in services for intermediate bulk containers (IBCs) aligns with THIELMANN's growth strategy as the world's leading one-stop shop for the container industry.

## Front Cover Interview

Goodrich Maritime MD R. Gopal shares the company's growth story and knowledge of the Indian tank container market



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## TECHNOLOGY



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HOYER has 10,000 Smart Tanks in operation and plans to equip its entire fleet within the next three years

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# India calling

There's a Hindu proverb: "A person who misses a chance, and the monkey who misses its branch, cannot be saved". Is the petrochemical logistics sector in India – and the tank container sector in particular – an opportunity that is being missed by many?

It is a cliché that India is a land of contrasts, even in the prosaic world of business – petrochemicals have made fabulous fortunes for a handful of people in India, while raising the living standards of India's one-and-a-half billion population. (Sir Jim Ratcliffe, the UK's richest person, also created his \$27bn of wealth through petrochemicals, via INEOS).

India's ranking in the World Bank's 2016 Logistics Performance Index has risen to 35th from its 54th position in 2014. In contrast to the country's low ranking on the Logistics Performance Index, the largest petrochemical company in India is one of the world's most widely-admired companies for executing large-scale petrochemical projects on time and on budget.

The importance of the logistics sector is reinforced by its inclusion in the Indian government's Harmonised Master List of Infrastructure Sub-sector. This is important because it facilitates the credit flow into the sector with longer tenures and reasonable interest rates. Inclusion on the list simplifies the approval process for the construction of multimodal logistics facilities, including those in logistics parks that include both storage and transport infrastructure. The government claims that it will encourage market accountability through regulatory authority and will attract investments from debt and pension funds into recognised projects.

All well and good then, not least because the logistics sector in India remains unorganised, inefficient and expensive. The high cost of logistics impacts domestic and international competitiveness, the material handling infrastructure is under-developed and chemical warehousing is fragmented.

In this issue of *Tankcontainer Magazine* we focus more narrowly on the opportunities for tank containers in the Indian petrochemical logistics sector. Demand for petrochemicals has grown by over eight per cent annually during the past five years, with the sector viewed as being one of the stalwarts of the Indian economy. Per capita annual consumption of 10 kg petrochemicals in India is one of the lowest in the world and just one-third of the world average.

We profile Reliance Industries Limited, the largest petrochemical producer in India and the country's most profitable company. With sales of over \$66bn, it

is one of the world's largest petrochemical companies and one which has benefited from the huge growth in the Indian domestic market while being protected from competitors' imports by tariffs and other non-tariff barriers that have been erected by a fundamentally protectionist government.

The trade flow for tank containers runs through the ports of Jawaharlal Nehru Port (also known as Nhava Sheva), Kandla/Deendayal on the west coast, Mundra (opposite Jamnagar and the largest private port in India), Visakhapatnam in Andhra Pradesh (also known as Vizac) and Chennai, the third largest container gateway in India.

Nhava Sheva, located east of Mumbai, is the country's largest container port and is commonly referred to as JNPT (Jawaharlal Nehru Port Trust) by those in the tank container sector. The port handles about 55 per cent of the country's containerised cargo.

Empty tank containers have been traditionally repositioned to the west coast of India so that they are available for new cargoes originating from either India or the Middle East. More recently, however, the strength of the Indian tank container market – combined with markedly increased demand from the Middle East – has emptied the Indian west coast pool of idle tank containers.

Unsurprisingly, the area around Nhava Sheva has the highest concentration of tank container depots and cleaning stations. Other key locations include the Kutch district in Gujarat, close to Jamnagar, where Reliance Industries owns the largest refinery in the world.

Currently, the tank container market is sluggish for outbound cargoes from India, according to Goodrich Maritime. Purchases by European customers, which remains India's largest market, have slowed, but overall imports still show year-on-year growth while Chinese and Korean tank container trade has marginally increased. The fall in freight rates and the shortage of small tankers has stimulated tank container demand in India.

Elsewhere in this issue, we conclude the Porter Five Forces analysis of the global tank container leasing market and, at a time when China-based HNA is looking to sell its entire stake in Seaco and investment returns from tank container leasing are said to be 'edging up to nearer 10 per cent', we map out a disruptive strategy for investors looking to enter the tank container leasing sector.

**Leslie McCune, EDITOR**





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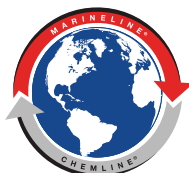
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# Thielmann announces takeover of CONTek IBC-Service GmbH



THIELMANN is pleased to announce the acquisition of CONTek IBC-Service GmbH. CONTek's knowledge in services for intermediate bulk containers (IBCs) aligns with THIELMANN's growth strategy as the world's leading one-stop shop for the container industry.

Based in Ellrich, Germany, CONTek is a world leader in cleaning, maintenance and inspection of containers especially for the chemical and automotive coatings industry.

CONTek's automated cleaning facility is optimized to clean containers with a capacity from 250 to 1,200 liters.

CONTek is very successful in the high-end cleaning sector and THIELMANN is planning to build on their strength in the future and to further grow the business on-site in Ellrich.

Fredi Endtricht, CONTek's co-founder will continue to lead the company as Managing Director, with special focus on the expansion of the facilities and production capabilities.

Wolfgang Kuhn, CONTek's co-founder, has reached retirement age and has left the company from an operational level on September 30th. He will continue

to support THIELMANN as an advisor.

"THIELMANN is growing. Our strong organic growth is supported by selected acquisitions, especially of specific competencies. CONTek is perceived as an undisputed leader in cleaning of IBCs," said Bernd Loeser, CEO of THIELMANN.

"With its integration, THIELMANN will complement its current service portfolio in different container sectors and CONTek will benefit from access to a broad global customer base and THIELMANN's world-leading expertise in the container industry."

"With THIELMANN, we found

the best owner for our life's work. As initially planned CONTek can grow and expand its capacity" Mr. Kuhn commented on the acquisition.

Mr. Endtricht added: "I am happy to see CONTek joining THIELMANN. This will lift our company to the next level and supports our wish to expand the business.

"THIELMANN is the leader in stainless steel containers and CONTek is the leader in container cleaning. I am sure, that both parties will profit significantly."

It is planned to rename CONTek into THIELMANN CONTEK within the next weeks to fully integrate CONTek into THIELMANN.

## Boasso Global acquires Kobler

Boasso Global, a wholly owned subsidiary of Quality Distribution, Inc., has acquired 100% of Kobler, Tank-und Silo-Container Transport GmbH.

"We are excited about this acquisition because it expands our European footprint into Germany, which is the largest European economy, through a highly reputable, full service ISO tank container business like Kobler," the company said.

Kobler, which was established in 1982, and has grown to be one of Germany's most reliable and well-run ISO tank service providers.

"Our near-term integration efforts will focus on gaining a deeper understanding of existing processes and combining best practices of Kobler and Boasso to offer an enhanced and un-paralleled service to our customers," said Boasso Global.



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# Latest ITCO technical report targets five areas of discussion

The latest ITCO technical report covers five key areas of discussion: Fibre reinforced plastic for portable tanks, relief device annual inspection, shell corrosion allowance, shell thickness design calculation, and RID-ADR tank container/portable operator definition.

The following points have been published in the organisation's latest monthly newsletter:

## 1. Fibre reinforced plastic (FRP) for portable tanks

- The FRP work group (including ITCO) met at the UN meeting in continuation of the task to regulate the construction and the use of FRP for UN portable tanks.

- The regulation format was agreed to concentrate initially on liquid substances, before moving onto class 2 liquefied gases.

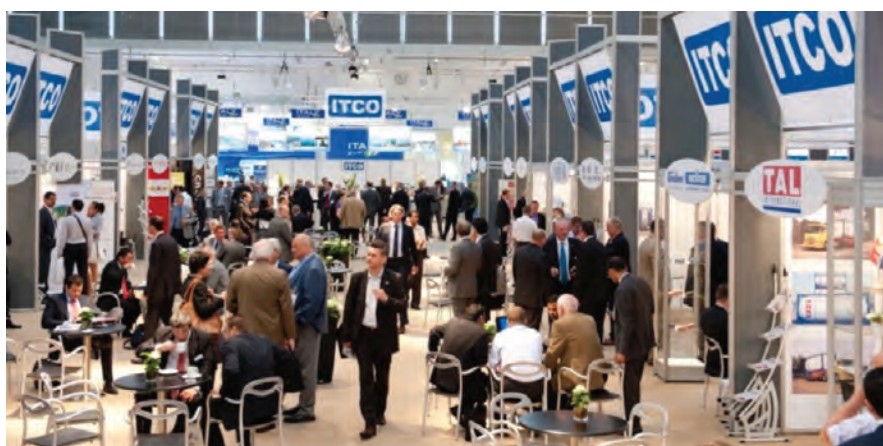
- The prime benefits of FRP are low tare weight and compatibility with corrosive substances. The work is currently scheduled for completion by June 2020.

## 2. Relief device annual inspection

- It was proposed that 4.2.1.17.1 requirement for inspection of relief devices to UN portable tanks transporting corrosive substances, be expanded to describe the detailed inspection process.

- The proposal describes the process from 6.7.2.19.8 which includes an internal inspection of the device, necessitating cleaning, dismantling and a leak check on reinstatement.

- Following comment from ITCO the plenary, it was agreed that consultation will take place



prior to re-assessing the requirement and present a revised paper at the next meeting.

- A joint CEFIC-ITCO proposal has been prepared as part of the consultation process.

## 3. Shell corrosion allowance

- Certain liquefied gases require a corrosion allowance in accordance with TP19, TP 22.

- A paper was proposed concerning whether the minimum corrosion allowance should be interpreted to read present at all times – in which case the shell thickness would need to be increased to allow for degradation.

- It was agreed that the corrosion allowance was expendable but the minimum shell thickness should be maintained.

## 4. Shell thickness design calculation

- A paper submitted recommended amending the current construction regulation 6.7.3 gas design calculation from the use of maximum gross mass to maximum payload.

- It was agreed to re-assess the paper at the next meeting.

## 5. RID-ADR Tank-container/portable operator definition

- A paper has been prepared by ITCO to amend the existing definition to differentiate between the registered owner and tank operator.

Currently, the paper is in the process of consultation with the Netherlands authorities and will be submitted at the next available session.

## H Essers new warehouse

H Essers recently opened its new warehouse on the Kluizendok site in Ghent, Belgium.

Gert Bervoets, CEO, said: "Our new strategic site meets all our requirements as a further growth point in our chemicals segment. It is not only suitable for setting up and expanding our warehousing facilities and solutions with added value, it also offers sufficient possibilities for further expansion in the future."

"Moreover, with this new site, we now also have our own location in East Flanders in addition to those in Antwerp and Limburg. This geographical spread and proximity are extremely interesting for our customers."





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# 'SMART' TANK

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# Van den Bosch links with Inpat Center

Together with various other companies in Brabant, The Netherlands, Van den Bosch has closed an agreement with the Inpat Center, an organisation that is dedicated to supporting talent in coming to Brabant at a regional, national and international level.

Initiators Jeanne van Boekel and Lucré Cappetti are committed to support highly educated talent in their career move to Brabant.

"It is our goal to enable a carefree settlement in Brabant."

Many companies in Brabant already experienced the added value of the Inpat Center, as did Van den Bosch.

Director Staff Services Michiel van Kessel explains: "As an international player in bulk transport, we are operating all over Europe. We have ample opportunities for ambitious international talent with knowledge of the countries we do business with and the specific languages.

"We are happy to welcome these new talents into our



organisation and want to invest in their future." Starting a career in the Netherlands also means starting to build up a new life.

"The Inpat Center helps and supports our employees in all necessary steps: from housing to financials."

Tamas, one of the employees who made the step to relocate, said: "When I was contacted for a job at Van den Bosch, I saw it as a great opportunity. I have a Master degree in Logistics Management and want to develop further, but a

relocation to the Netherlands involves quite a lot, like finding a place to live and all kinds of things you have to take care of.

"Fortunately I was put in touch with the Inpat Center quite quickly. They did a great job in helping me."

His colleague Stefania agrees: "It is very reassuring to get support in everything that has to be arranged.

"You are not on your own. The Inpat Center is always there to help you."

## Thomas RJ Hoyer receives Lifetime Achievement award

The Hamburger Gründerpreis (Hamburg Founder's Prize), an initiative by the Hamburger Sparkasse (Hamburg Savings Bank) and Hamburg Abendblatt newspaper, honours outstanding entrepreneurial personalities in the Hamburg metropolitan region.

The award in the Lifetime Achievement category was presented to Thomas R. J. Hoyer in Hamburg's Fish Auction Hall on 10 September 2018.

The Hamburg Founder's Prize has been awarded since 2002 to honour special achievements by Hamburg entrepreneurs in the Business Start-up, Achiever and Lifetime Achievement categories.

Hamburg's First Mayor Dr Peter Tschentscher emphasised the significant contribution made both by

Thomas Hoyer himself and by the HOYER Group, which have made Hamburg one of the top logistics locations and a pioneer in digitalisation.



Thomas Hoyer replied: "I can say with pride that we have continued to develop my father's legacy as he would have wished. For me, the distinction is also an appreciation of the efforts by the whole family and by our employees."

Thomas Hoyer has decisively shaped the developments and successes of the family business since joining the HOYER Group in 1980. After HOYER USA was founded, he was initially responsible for this foreign business division before moving to the Executive Board of the HOYER Group in 1986 and taking up the position of management spokesman from 1991 onwards. Thomas Hoyer has chaired the Advisory Board since 2007.

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## 40th birthday celebration for Leschaco Brazil

Leschaco, Ltda. (Brazil) celebrated 40 years of company history in Sao Paulo with around 230 invited guests.

Mr. Constantin Conrad, son of Jörg Conrad, the owner of the Leschaco Group who unfortunately could not attend the event himself, opened the anniversary event with his official speech.

He was pleased about the numerous guests, who have accompanied Leschaco Ltda in Brazil in different ways over the past forty years.

The guest speaker was Mr Axel Zeidler, Consul General of the Federal Republic of Germany in Sao Paulo. In his speech he pointed out, that Leschaco Ltda. has been a reliable logistics partner in Brazil for 40 years now.

This is remarkable because Brazil is no easy place to run a company



Left to right: Oliver Oestreich (COO of the Leschaco Group), Constantin Conrad (Branch Manager Leschaco Iberia, Spain), Alex Geng (Managing Director Leschaco Ltda., Brazil)

successfully over such a long period of time.

Finally, Mr. Alex Geng, Managing

Director of Leschaco, Ltda. addressed the participating guests and thanked them for coming.

## HÜNI+CO successfully completes ISO 9001: 2015 recertification

HÜNI+CO has announced its successful recertification according to the International Standard for Quality Management Systems ISO 9001: 2015.

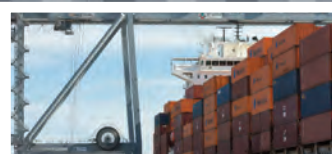
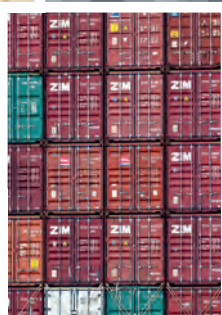
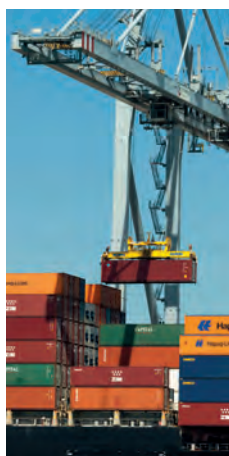
It specifies requirements for a quality management system when an organisation: a) needs to demonstrate its ability to

consistently provide products and services that meet customer and applicable statutory and regulatory requirements, and

b) aims to enhance customer satisfaction through the effective application of the system, including processes for improvement of the system and the assurance of

conformity to customer and applicable statutory and regulatory requirements.

All the requirements of ISO 9001:2015 are generic and are intended to be applicable to any organisation, regardless of its type or size, or the products and services it provides.



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## Buyer sought for Seaco



HNA Group Co is seeking a buyer for its container and tank container-leasing business Seaco, according to *Bloomberg* sources.

The sale would mark the latest attempt by the Chinese conglomerate to reduce its debt pile. HNA is working with an adviser on the potential sale, which could reach \$1bn, according to the sources.

The conglomerate decided to sell Seaco as part of its strategy to divest assets unrelated to its core aviation business, it has been reported.

Seaco, which is controlled by HNA's Shenzhen-listed Bohai Capital Holding Co unit, may draw interest from other global rivals in the container leasing industry, the people said.

No final decisions have been made, and there is no certainty the deliberations will lead to a sale of Seaco, according to the people.

## First ISO-container loaded with LNG

Polskie LNG says the cryogenic liquid container (ISO-container) was loaded with LNG on Thursday, September 20.

The LNG terminal provides the service of loading road tankers with LNG. So far, over 3000 road tankers have been loaded at the facility and the popularity of this service is constantly growing. It has been the first ISO container loading operation in the history of the Świnoujście plant:

"We aim at developing the LNG

market in Poland and the region. Expanding the portfolio of services provided by Polskie LNG is an inherent element of market expansion.

"We have just launched an additional service consisting in loading LNG into cryogenic tanks which may be compared to mobile storage for liquefied gas.

## Eurotainer opts for Omni Tanker

After a thorough analysis of the available composite tank container manufacturers Eurotainer SA has placed an order and recently taken delivery of new 20 foot composite barrel tank containers from Omni Tanker of Australia.

Eurotainer chose Omni Tanker due to its years of expertise in composites, a superior composite technology and a willingness to work with Eurotainer to build tank containers that meet the needs of our global client base.

In turn, Omni Tanker was looking for a tank container leasing company that could help them expand globally. Omni and Eurotainer are now working together to provide a product that offers a lightweight alternative to lined/coated steel tank containers.

Omni Tanker is one of the world's leading composite technology and manufacturing companies.

Omni Tanker owns proprietary composite materials technology, applied to the manufacture of high technology composite tanks with exceptional chemical resistance and low tare weight for bulk transportation of corrosive and high purity



chemicals.

It is these two primary attributes that separate Omni Tanker from the competition and makes their product the perfect choice for Eurotainer.

The ability to offer our clients a safe, lightweight, durable, easy-to-clean and versatile composite tank container has been a goal of Eurotainer for some time.

Omni Tanker has delivered with break-through technology that will transform the tank container industry – a perfect fit for Eurotainer's vision and commitment to provide innovative high purity and corrosive chemical tank container equipment to its global customer base.

The selection of Omni Tanker is in line with Eurotainer's strategy to be the global leader in specialized tank containers.

Eurotainer unveiled the new composite tanks at their recent Customer Technical Day event in Houston, Texas USA.

Such a storage facility allows the recipients to use natural gas anywhere and anytime without additional infrastructure required.

"We hope to see the rapid development of this type of services provided by Polskie LNG in the near future," said Paweł Jakubowski, President of Polskie LNG.



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The 40-foot long TVS-40-PB-10 model of ISO-container is provided with side and rear connection fittings. The tank was loaded with 16.2 tons of LNG using a flexible connection for side fuelling provided at the modernized tanker slot C.

Cryogenic tank containers are commonly used for the transport of atmospheric gases and LNG in intermodal transport i.e. by sea, road and rail.

They may be also used as stationary storage tanks where the construction of LNG satellite stations is not considered profitable for various reasons.

ISO-containers provide a safe method of storing technical gases, and they are constructed according to TPED 2010/35/EC directive and the requirements of EN 13530 standard.

The team of Polskie LNG - the operator and owner of the LNG terminal in Świnoujście - is working on the program of infrastructure expansion which will allow the company to offer new services in the future, including the possibility of loading liquefied gas onto ISO-containers for rail transport.

The new services to be provided by the LNG Terminal include handling vessels of different sizes, LNG bunkering on ships, as well as reloading LNG from larger vessels to smaller ones and from onshore tanks onto vessels.

Other elements of the planned expansion programme involve the construction of the third LNG process storage tank and the increase of regasification capacity of the terminal from 5 billion Nm<sup>3</sup> to 7.5 billion Nm<sup>3</sup>.

## Widnes schoolchildren enjoy road safety lesson



Pupils from Lunts Heath Primary School in Widnes switched the classroom for the boardroom last week as they went behind the scenes at global logistics company Suttons Group.

As part of Suttons' annual Safety Drive, a group of more than 50 students from Year 5, aged 9-10, were invited to find out more about the multinational company on their doorstep and take part in a lesson on road safety.

Suttons, specialists in chemical transportation with depots across America, Asia and Europe, has its headquarters on Gorsey Lane in Widnes.

The schoolchildren were given a presentation on the history of the firm and the types of tankers they use, followed by a quiz on safe cycling and the chance to take part in an outdoor exercise learning about blind spots and experiencing exactly what a driver can see when a cyclist is riding behind them.

John Sutton, CEO of Suttons Group, said: "It was wonderful to be able to bring some of our local children to see what we do here at Suttons and also learn to be more

aware on the road.

"Health and safety is of the utmost importance to Suttons so every year we hold a dedicated Safety Drive covering all our sites, those of many of our customers, and the communities we operate in.

"It was particularly pleasing to get local youngsters involved in the initiative."

Andrew Williams, Head Teacher of Lunts Heath Primary School, said: "Working in partnership with companies is very important for us.

"When the opportunity first arose, we gratefully accepted Suttons' offer for the children to see the trucks up close.

"Learning about the logistics industry and, in particular, how to stay safe when cycling on the roads is a fundamental part of our teaching.

"This visit will certainly have given them much to talk about with their safety teacher Miss Huddleston in class next week."

Suttons operates in the UK and internationally with a fleet of more than 500 vehicles focused on the chemicals, gas and fuel sectors.

## Experts focus attention on tank containers with FRP shells

The Russian Maritime Register of Shipping (RS, the Register) was a participant to the international events where the issues related to containers were reviewed among others.

In September 2018 the IMO

Sub-Committee on containers and goods (CCC5) session and the annual International Tank Containers Organization (ITCO) Assembly were held.

Traditionally, at the IMO Sub-Committee on containers and

goods (CCC5) session a number of Maritime Administrations submitted their reports of incidents involving dangerous goods in packaged form.

Based on reports, most frequently the accidents are





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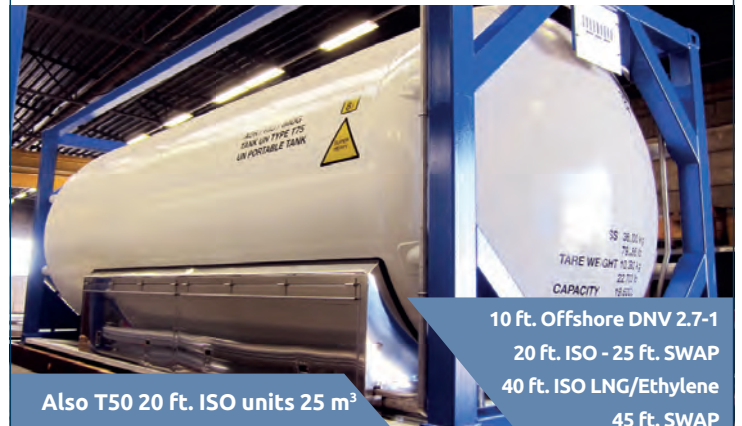
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caused by improper goods marking and inappropriate stowage/securing inside cargo transport units. The Sub-Committee urged all administrations that had not yet submitted their reports, to give the highest priority to the above activities, as that information ensured developing effective measures to reduce accident rates, and specifically by clarifying international requirements.

Among other issues on containers, the Sub-Committee considered information provided by the Bureau of International Containers (BIC) to create and maintain the databases on containers and for Approved Continuous Examination Programme (ACEP).

The specialists focused on the subject first voiced by Russian Federation (RF) delegation at MSC.98 in 2017. The speech was the point of reference for development of normative requirements relating to tank containers with fibre-reinforced (FRP) shells, the advantages of those being ever more uncontested.

In particular, at the held session the importance of safety criteria was emphasised to be consistent with the applicable ones to tank containers with metal vessels. Approval of IMO type 4 tanks (road tank vehicles) was discussed regarding transportation by sea in compliance with the International Maritime Dangerous Goods Code (IMDG Code). The Sub-Committee members were informed that a working group was currently functioning within the framework of the UN Subcommittee of Experts on the Transport of Dangerous Goods (UNTDG) to prepare and introduce relevant additions to the Orange Book (Recommendations of UN Experts on the Transport of Dangerous Goods). According to the activity schedule, the international

## Klinge receives prestigious small business award



Hellam Township-based Klinge has won the Eastern Pennsylvania SBA award for Exporter of the Year for 2018.

According to Antonio Leta, Director of the Eastern Pennsylvania SBA, Klinge Corp – the world leader in specialised transport refrigeration, freezing and power-generation equipment – is “an outstanding example of a business that starts and grows through over 30 years of exporting success in the global market.”

Klinge was selected for this honour from among dozens of successful businesses nominated in 40 counties.

Klinge’s refrigerated container export business was founded in 1984 and is a family-owned and -operated business exporting transport refrigeration and power generation solutions to over countries all around the world, with more than 80% of its sales overseas. The company services such industries as the pharmaceutical industry, seafood and meat processing, oil and gas, the military, and the chemical industry, with easy-to-operate yet sophisticated and reliable refrigeration equipment.

Klinge’s customised designs, developed to stand up to rigorous testing and challenging environments, may provide an edge to companies who use them over the standard, mass-produced containers that other commercial enterprises typically use. Klinge Corp.’s offerings include refrigerated tank containers, offshore explosion-proof refrigerated containers, dual refrigerated containers, blast freezers, ultra-low temperature units, quick thaw units, collapsible food storage bins and integral and external generator sets.

requirements for tank containers with fibre-reinforced (FRP) shells were expected to be developed for next two years, after that the recommendations will be included in the IMDG Code. The Sub-Committee members expressed complete support for the working group activities.

The above subject was addressed at ITCO Assembly as well. The organisation confirmed its willingness to participate in developing the normative requirements for tank containers with fibre-reinforced (FRP) shells.

Among other things, the

participants were offered information about the RF proposal to UNTDG as regards performing the strength calculations for tank container vessels.

he issues were discussed regarding potential risks associated with misclassification of dangerous goods, corrosion impact on the technical condition of transport equipment, problematic classification of equipment to the requirements of IMDG Code and European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).



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# Indian summary

Goodrich Maritime MD R. Gopal shares the company's growth story and knowledge of the Indian tank container market with *Tankcontainer Magazine*

**TCM:** When did the Goodrich Maritime story start?

**RG:** My colleague T.Venkataraman and I set up Goodrich Maritime Private Limited in 1997. It started off as a company offering agency-related services and gradually forayed into other shipping-related activities.

**TCM:** What is its range of services?

**RG:** In India, Goodrich runs an agency company which represents operators from dry to tank containers. Our offshore companies are mainly the operating entities. The flagship is Vasco Maritime, which runs out of Singapore, and has a fleet of 20' and 40' dry boxes.

The service covers Thailand, Singapore, Malaysia, Myanmar, Sri Lanka, Bangladesh, India, Pakistan and the Middle East.

The UAE company, GMLLC, operates tank containers and special equipment such as reefers, open tops and flat racks.

**TCM:** What is the size of the company in terms of people and where does the company now have offices?

**RG:** Goodrich currently has 17 offices in India, covering all ports and inland container depots. The foreign locations are in Thailand, Singapore, Malaysia, Sri Lanka, the UAE (Dubai) and Saudi Arabia (Dammam).

These offices play a supporting role in running our liner, tank



container and other special equipment services.

Goodrich also has a fully-owned logistics company named Goodrich Logistics Private Limited, which operates mainly project cargos. The company has offices in Afghanistan, Dakar and the Ivory Coast.

We currently employ around 700 personnel globally.

**TCM:** What is Goodrich Maritime's liquid cargo activity?

**RG:** We started by selling flexi-tanks, along with our associate, Braid. It was more of a concept selling these back in 2002 but we have come a long way since then.

We are the market leader for food grade tank containers in India and represent Braid Logistics UK, with whom we have a long

association.

In terms of chemical tank containers, we have grown to be a formidable player. We are quite active on short sea trade and operate within the east of Suez and China-Far East region.

In India, we have domesticated T11 tank containers and swap bodies. We are also involved in tank container management i.e. we take on the operational responsibilities for tank containers that are owned/leased by shipper and consignees - we manage them on a global scale.

**TCM:** What sort of liquid products does you carry?

**RG:** A variety, including food grade, non-hazardous and hazardous products in Class 3, 6, 8 and 9.



**TCM:** How much of its business is derived in India?

**RG:** Around 15 per cent of our business originates from India.

**TCM:** Who are typical clients in India?

**RG:** These included both Indian and multinational chemical manufacturers, traders and freight forwarders.

**TCM:** What are the trends for tank containers in India?

**RG:** Currently, the market is sluggish for outbound cargoes. Europe, which remains India's largest trading partner, has slowed down in buying while China and Korea have shown a marginal increase.

Inbound trade is showing year-on-year growth, which is partly attributable to the fall in freight rates and a shortage of small tankers.

Apart from the equipment operated by the tank container operators, there is a good volume of tank containers that are handled directly by the shipping companies.

These tank containers are owned by the shipper/consignee and are contracted directly with the shipping lines. The type of tank containers varies but includes T11, T14, T20, T50, T75 and powder tanks. The in and out volumes are at least 800 tank containers a month.

**TCM:** What are the opportunities for tank containers in India?

**RG:** There are now a lot of tank container enquiries from local transport companies and chemical manufacturers. Multinational companies have been working closely with their service providers and hauliers to look at the benefits of using tank containers for domestic movements. This will take time as cost plays an important role.

The shift from mild steel to a

316 stainless steel tank container is definitely a leap forward. In the shipping sector, the government has been giving a lot of support to the development of coastal shipping and a few operators have deployed tonnage linking various Indian ports on the west coast with developments also happening on the east coast. This could be an opportunity for further boosting domestic tank operations.

**TCM:** What are the opportunities for T50 and T75 gas tank containers in India?

**RG:** Regarding T50 tank containers, India is a fairly large exporter of refrigerant gases - there are only a handful of shippers who control the manufacture and exports of refrigerant gas. These shippers directly lease out T50 tank containers on a long-term basis. Collectively, they would have leased out around 300 tanks.

Another requirement for T50

tank containers comes from the ammonia exporters. They represent a smaller fleet, however, and are mostly owned by the shipper.

Importers of argon and helium are the main users of T75 tank containers. These tanks tend to be owned by the suppliers of the industrial gases, which are mainly based in the Middle East.

T75 tank containers are used for the carriage of carbon dioxide and these tank containers are owned by the shipper. T75 tank containers are also used for road movements to neighbouring countries such as Bangladesh.

**TCM:** To what extent are lined tank containers used in the India market?

**RG:** Usually T20 tank containers are used for internally lining the shell. Shippers generally buy and own these tank containers, which are used for the carriage of chlorides and acids. The tank containers are typically lined with



rubber, Säkaphen®, ChemLINE®, etc. There are also lined T20's for the carriage of bromine, which are all used for dedicated business.

**TCM:** Are new opportunities emerging in the gas distribution market?

**RG:** In India, gas for energy is generally controlled by the majors such as ONGC, GAIL, Petronet LNG and Oil India. With the government revising its policy on fuel, we have some medium-sized enterprises that are venturing into the import and distribution of gas. Goodrich is associated with a few of them on the distribution side but this is still in the planning stage. LNG and propane are being discussed.

**TCM:** What are the challenges of operating tank containers in India?

**RG:** Infrastructure is the concern at the moment. Despite quite some progress in the last decade, a lot more needs to be done and this will take time. The government has always encouraged industry to set up manufacturing facilities away from urban areas as a means of providing employment in rural areas.

Though a lot of rural companies have set up shop, the infrastructure has not kept pace with the industrial development - roads are narrow and need constant maintenance.

In addition, the regulatory authorities have still not made it clear that the use of tank containers is a safe mode of transport for hazardous chemicals. Proper representation and understanding should bring about the necessary change.

**TCM:** What genuinely unique tank container services does Goodrich offer?

**RG:** Goodrich has a good technical team which offers free assistance to customers who are unfamiliar with tank container operations. We work closely with

first timers and offer solutions at the plant level.

Our technical team consists of mechanical and chemical engineers who are well versed in tank container handling, safety instructions etc. They have been adequately trained at the tank container manufacturing facilities at Nantong.

**TCM:** Has the company won any awards?

**RG:** Yes, we have. We won the "Liquid Logistics Player Of The Year" for the past few years consecutively and have been invited to participate in panel discussions at various chemical logistics forums.

**TCM:** Do Indian tank container depots have a full-service inspection and M&R (Maintenance & Repair) capability for off-hired leased tank containers?

**RG:** Yes, just a few of them. However, on-hire and off-hire activities are few and far between.

**TCM:** Where is most tank container activity centres in India?

**RG:** On the west coast, mainly Nhava Shevam but other ports such as Mundra and Hazira are picking up.

**TCM:** Is there increasing interest in gas tank containers in India?

**RG:** Gas is the next source of energy. With availability increasing and gas transport becoming manageable, India is not far behind as a consumer. There are enquiries from logistics companies and a few end-users. With not much local expertise available, this is a big opportunity for well-established service providers. T50 and T75 tank containers will be in demand. However, it will need clarity from the regulatory authorities in its usage.

**TCM:** What is the status of Goodrich's new tank container cleaning station in Dubai?

## CV: R. Gopal



After graduating in Commerce, R. Gopal joined Transworld, a leading shipping agency, as a Shipping Assistant. After a thorough grounding in liner shipping, he moved into commercial roles and became the Shipping Manager. When the company grew and diversified, he was heading a separate agency house representing leading shipping lines. He served the company as the General Manager. After 16 years with Transworld Group, in 1997, he co-promoted Goodrich Maritime Private Limited. With a year of chartering operations, the company turned to liner agencies. Then came the dream of being a box operator and, subsequently, ship-owning. The desire for new opportunities led the company into bulk liquid logistics.

**RG:** It is currently work-in-progress. We expect the facility to be ready by the end of January/early February 2019. The cleaning station will be together with an integrated storage and distribution facility which will offer storage, blending, drumming, IBC filling, heating, temperature control storage – all under one



# Smart Tanks set new industry standard

HOYER has 10,000 of its innovative Smart Tanks in operation and plans to equip its entire fleet within the next three years. Felicity Landon reports

It's 20 years since HOYER started its first Smart Tank trials with GPS. Today, the Smart Tank is one of its top products in the market and, says Marlen Blechschmidt, head of digitalisation in HOYER's Netlog business unit, the product is setting benchmarks for the industry.

"With a need and demand for general transparency in the logistic chain, HOYER started to implement the first telematics solutions for some businesses in 2013," says Blechschmidt.

"With the success of the early trials, and the further developments of telematics, we started to equip the entire tank container fleet with smart technology in 2016."

HOYER describes its Smart Tanks project as part of 'the next stage in worldwide logistics management'.

## Combined experience

To manage every tank container even more efficiently, it combined its experience in cargo and goods transport with a highly specialised telematics solution. The company worked with a partner to develop the technology to equip its regular tanks and make them 'smart'.

At present, about 10,000 HOYER Smart Tanks are in use with customers worldwide. The



*Marlen Blechschmidt, head of digitalisation in HOYER's Netlog business unit*

company says it will equip all of its fleet of about 40,000 tank containers with telematics within the next three years.

What does the Smart Tank offer? Firstly, the tank container's position is monitored. The system also monitors the condition of the goods within temperature, fill level and pressure parameters. This allows HOYER to identify any changes, which can be detected at an early state via 'deviation alerts'.

"If there is a deviation in the optimal settings, alerts can be set to send directly to HOYER or to

the customer or both," says Blechschmidt.

The Smart Tanks provide a range of benefits to customers, she says – including improved fleet control, efficient utilisation of tank containers with optimised turnaround times, just-in-time management of all processes, time and cost savings across the entire logistics process, and the capability for all information to be presented clearly on a single platform. Positioning data enables tracking and supports the generation of status reports, while the temperature sensors allow monitoring and, when combined with a heating or cooling system, can provide active temperature management.

## Setting the tone

HOYER, a traditional independent family business, has been operating in bulk logistics for more than 70 years. It has made clear its belief that in future markets 'the tone will be set' by logistics companies which are in a position to offer integrated logistics solutions.

As well as its fleet of tank containers, HOYER owns about 2,400 trucks, 2,700 road tankers and 43,100 IBCs, and a wide range of logistics installations including depots, cleaning plants



and workshops. The company describes its Smart Tanks as one of its leading future projects, playing a fundamental role in its strategy. Smart Tanks contribute to the vision of being able to offer new and transparent digital services by enriching transport data with real-time information, it says.

"Within the supply chain, there is always a need to track the transported goods and we took this one step further by also testing and implementing sensors to measure not only the location of the tank itself via GPS but also the temperature, the pressure within the tank and the liquid level indication," says Blechschmidt.

"Our own developments and new demands within the market proved an ideal base for the implementation of telematics. We are able to simplify the entire supply chain for our customers while also taking the best care of, for example, dangerous goods during transport, for society and the environment. Our Smart Tank also enables continuous development to further improve operational efficiency and SHEQ (Safety, Health, Environment, Quality) performance.

Dependent on the specific dangerous goods certification or ATEX certification, HOYER's Smart Tank is designed to carry liquid or liquefied products, she says. "The system has specifically attracted massive interest from the chemical industry, where the precise conditions for transported goods are key factors.

#### Safety first

"Our Smart Tanks are targeted mostly at customers in the chemical industry with high requirements for safety and efficiency and constant transport parameters for liquid and liquefied goods. We offer the latest technologies combined with the highest efficiency for planning and controlling."

HOYER has been pushing a number of networked solutions in recent times, including Track & Trace, Vendor Management Inventory, Geofencing, Smart Tank and Supply Chain Solutions. All of these developments are designed to be user-friendly and the company aims to present complex topics to customers in 'concise analyses'. It also uses a training container and a model of a tank

container to inform and educate customers as well as its own employees on the Smart Tank initiative.

The group also actively supports cross-company initiatives such as KV 4.0, which is aiming at the digitalisation of intermodal supply chains; this project is funded by the German Federal Ministry of Transport and Digital Infrastructure as part of the mFUND (modernisation funding) initiative.

"Digitalisation is the driving force for logistics and we at a have taken this on board completely – not only with Smart Tanks but also with entire Smart Logistics solutions," says Blechschmidt. "Benefits for the optimised fleet management and in the reduction of manual system inputs are further enhancing transport safety and efficiency and meet all the requirements of modern in-time logistics. We are also able to provide the transport data via interfaces for our customers."

The response to the Smart Tanks has been 'immensely positive', she says, "setting a new standard for handling and managing products and the entire supply chain".



# How attractive is the global tank container leasing market?

Editor Leslie McCune concludes his analysis of the leasing sector, using a well known competitiveness model to look at the sector's competitive intensity

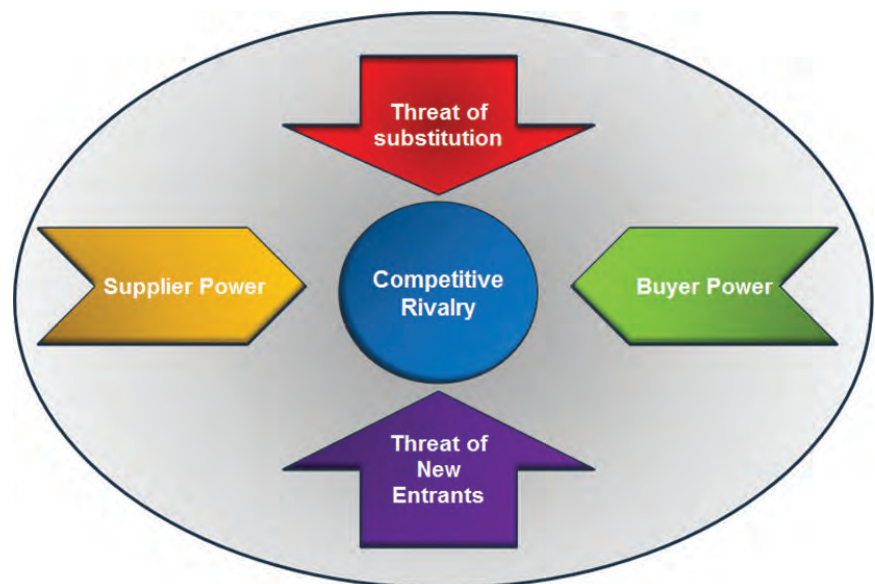
In previous issues of *Tankcontainer Magazine* we introduced Porter's well-known 'Five Forces' model for analysing the attractiveness and likely profitability of the tank container leasing industry.

Professor Michael Porter is a Harvard-based academic with a worldwide reputation as one of the foremost authorities on the global competitiveness of industries. He is the author of a compendium of books and articles on competitive strategy and competitive advantage and is said to be the most cited author in business and economics.

Porter's so-called 'Five Forces' model is a simple but powerful way of understanding the competitiveness of an industry sector, and for identifying the potential profitability of a company's strategy. It has become one of the most popular and highly regarded business strategy tools and, along with the ubiquitous SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis, has become an essential market analysis tool in most company board rooms.

The model recognises that tank container lessors keep a close watch on their rivals, but it encourages them to look beyond the actions of their competitors and examine what other factors could impact the business environment.

It identified five forces that make



up the competitive intensity of a market – these can either erode or enhance the profitability of a company operating within the market.

The five forces are:

- Force 1: Threat of new entrants
- Force 2: Bargaining power of buyers
- Force 3: Threat of substitute products or services
- Force 4: Bargaining power of suppliers
- Force 5: Rivalry among existing competitors

## The threat

In March's issue of *Tankcontainer Magazine*, we analysed the threat of new entrants into the tank container leasing sector and

concluded that, while there are no strong and durable barriers to entry into the tank container leasing market, the **THREAT OF NEW ENTRANTS** is **LOW** (or **WEAK**).

In June's issue, we analysed the bargaining power of buyers i.e. those companies looking to lease tank containers. We concluded that the **BARGAINING POWER OF CUSTOMERS** is **MEDIUM**. The inability of customers to drive prices down – because of their small size relative to that of the lessors, and their occasional need for specialised units – is offset by the fundamental over-supply of tank containers available for lease, which stimulates day rate discounting.

In September's issue we considered Force 3, the threat of substitute products or services, and Force 4, the bargaining power of suppliers (i.e. tank container manufacturers). We concluded that THREAT OF SUBSTITUTE PRODUCTS for leased tank containers is LOW (or WEAK) because flexitanks, drums, parcel tankers and local production do not present viable alternatives to the leasing proposition.

A substitution that is difficult to make strengthens the position of lessors and supports the profitability of the lessor.

## Bargaining power

We also concluded that the BARGAINING POWER OF SUPPLIERS (i.e. tank container manufacturers) is also LOW (or WEAK) because there are many potential manufacturers in the market, generic standard T11 tank containers can be used for a large percentage of cargoes and there are low costs associated with buying new tank containers from a different manufacturer.

As Singamas' recent profit warning suggests, some tank container manufacturers are operating at break-even (or at a loss) due to increased raw material costs - corten steel prices have risen although the cost of the nickel component, which makes up between 0.11-0.17 per cent of the composition, has fallen in line with the 25 per cent reduction in nickel prices from April to August this year.

The weakening Renminbi has also helped moderate production costs in China and supported US\$-denominated sales. Upwards cost pressures cannot be passed on to customers in full by tank container manufacturers due to competitors holding prices low to fill new capacity or to keep existing capacity as fully utilised as possible.

The bargaining power of tank container manufacturers will

increase when, or if, market demand growth consumes capacity (or when rapid delivery is needed). The near double-digit leasing rate returns achieved in the first half of 2018 will be pressurised by higher prices for new tank containers (although prices are currently held back by the stock overhang at tank manufacturers).

## Force 5: Rivalry among existing competitors

We now look at the last of Porter's five forces - the competitive rivalry within the tank container leasing market. This force considers the number and strength of the lessors making up the global market. How many rivals are there? How strong are they? Who are they and how does the quality of their products and services compare?

Where rivalry is intense, lessors can attract customers - temporarily, at least - with aggressive price cuts. Conversely, if competition among lessors is muted, they are more likely to have healthy profits.

In the past five years, the global fleet has grown by nearly two-thirds to 245,000 units. 27 leasing companies were listed in ITCO's global tank container fleet survey in 2013 while 36 lessors were noted in the 2018 survey.

The increase in the number of lessors may be due to the survey's reporting being more inclusive but, following the acquisition spurt in recent years and the wholesale fleet renewals that have taken place, the average size of lessors' fleets has increased substantially.

## Market characterisation

The leasing market is characterised by a relatively few number of lessors dominating market share - the top ten leasing companies accounted for 75 per cent (184,392 units) of the global leasing fleet in the 2018 ITCO survey with the top three leasing

companies - Marmon/Berkshire Hathaway-owned Exsif Worldwide (52,000 units), HNA-owned Seaco Global (42,000 units) and Ermewa-owned Eurotainer (35,000 units) - accounting for 53 per cent (129,000 units) of the global leasing fleet. Trifleet (14,192 units), Triton/TAL (13,500 units) and Raffles (11,500 units) make up the second tier of lessors.

While this may suggest that the competitive intensity of the sector is muted, given the market dominance of a few players, the converse may be true - the larger players have the financial depth and assets to compete aggressively against each other.

Those that are squeezed are small to medium-sized leasing companies which offer undifferentiated assets and services. These players may sustain their business based on long-term, often local relationships, but - having neither the in-house technology capability nor the related financial resources for IT investment - are struggling to offer the IT packages increasingly demanded by customers. These smaller-scale leasing companies are price-takers but continue to survive, not least because owners accept the generally low returns of the business.

Internal rivalry in the leasing market has increased as the number of players has grown. The cost of capital is still low by historical standards and both seed and growth capital are freely available for the tank container leasing sector.

New lessors such as Albatross (Sinochem International Logistics) and GEM (now owned by venture capitalist, Rampart) have emerged while the box container companies have noted the greater rewards and relative stability of the tank container sector.

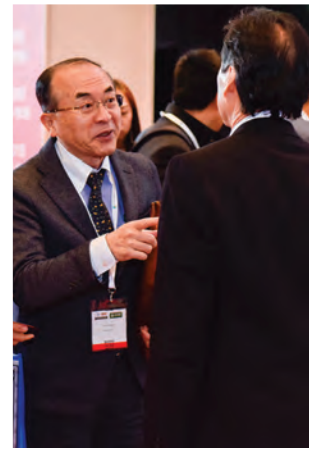
Those interested in Seaco - put up for sale by Chinese conglomerate HNA in February -





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should include COSCO/Florens, Textainer, Triton International and tank container manufacturer CIMC.

Seaco is controlled by HNA's Shenzhen-listed Bohai Capital Holding and has been put up for sale as part of HNA's efforts to increase its liquidity and as a means to substantially reduce one of China's biggest corporate debt piles (\$79 billion). The likely sale price is expected to be well over \$1 billion.

Investment horizons also have an important contribution to the internal rivalry between lessors. General Purpose dry freight container lessors delivered high returns on equity (of over 20 per cent) some years ago, partly boosted by the unusual spike in business conditions from 2010.

These then normalised by 2015. While access to capital markets offers public equity companies funding advantages, the shorter-term return requirements of investors in those companies drives investment decisions that are not particularly well suited to the longer term nature of the container leasing sector.

The constant demand on public equity companies for growth drove overly-aggressive container acquisitions between 2010 and 2012, when container prices and per diems were increasing. However, oversupply led to rates falling during 2013 and 2014.

CAI were the swiftest to react to the state of the dry box market at the time and directed capital towards railcars. Phil Brewer, the recently-retired CEO at Textainer, entered into an agreement with Trifleet to offer tank containers in 2013. Textainer and CAI were among those which adopted a looser depreciation policy to offset near-term earnings pressure.

## Leasing trends

Three trends are evident in the sector – consolidation among the

lessors, greater fleet diversity in terms of equipment types and buyout interest from investment funds.

Setting aside the fate of Seaco, the latest evidence of consolidation is Ermewa's acquisition of Taylor Minster Leasing (TML), which will result in TML's tank container fleet of over 5,000 owned and managed tank containers – including the company's contractual leasing activities – being transferred into Ermewa's Eurotainer business, which currently has around 39,000 tank containers. Ermewa is an asset management company and a European leader for leasing services in the industrial railcar, tank container and locomotive sectors.

## Gaining access

Consolidation activity is being particularly focused on increasing the share of more specialised tank containers in the fleets of lessors and on gaining access to the higher grow market for gas and cryogenic tank containers. The changes in dangerous goods regulations have, of course, boosted demand for more specialised tank containers.

One example of this is the ending of the second step contained within the ADR/RID special provision TP37 on 1 January 2017, which encouraged some lessors to acquire ASME U2 stamp T20 and T22 tank containers. These equipment types have 8mm and 10mm shell thicknesses respectively and come with or without baffles.

Increasing fleet diversity is being driven by both operational and market reasons. Composite tank containers are increasingly being offered by lessors for operational reasons (weight reduction and improved thermal properties) while market niches such as LNG within the high growth gas (T50) and cryogenic (T75) market are

being targeted by several lessors and operators.

The interest of funds in the tank container sector continues, with VTG being the subject of unsolicited interest by Warwick Holding GmbH, an indirect wholly-owned subsidiary of funds advised by Morgan Stanley Infrastructure Inc. In July it launched a voluntary public offer for all the outstanding shares in VTG which, predictably, said that the offer price of €53-a-share 'does not adequately reflect the fundamental value and future potential of VTG'.

## Internal rivalry: summary

On balance, I conclude that the internal rivalry in the global tank container leasing market is MEDIUM. The market is relatively consolidated although there is little significant differentiation in products or services between the top three major lessors. However, customers are getting larger, benefiting larger lessors. Smaller regional and local companies are disadvantaged by their lack of scale and technical resources but have an important role in keeping per diem lease rates low.

## Conclusion: Is the leasing sector attractive?

- Force 1: Threat of new entrants  
LOW
- Force 2: Bargaining power of buyers  
MEDIUM
- Force 3: Threat of substitute products or services  
LOW
- Force 4: Bargaining power of suppliers  
LOW
- Force 5: Rivalry among existing competitors  
MEDIUM

On the basis of the above, Professor Porter would make a clear conclusion. What's yours?



# Why investors are attracted to tank container leasing

*Tankcontainer Magazine's Editor, Leslie McCune, plots a disruptive strategy for investors looking for a position in tank container leasing*

Imagine being the investment manager in a company specialising in offering asset-backed investment opportunities for institutional investors looking to deploy their capital into investment grade, income-generating assets.

It's Friday night and you have to present some compelling ideas to your Board on Monday morning. You've read in *Tankcontainer Magazine* about the attractions and risks of the tank container leasing market - it is asset-backed, leases offer long-term income to match the long term liabilities of institutional investors, the de facto US\$-denominated operating currency of the sector can be hedged, market fundamentals are strong, there is room for further consolidation and the overall sector is an effective hedge against higher interest rates and commodities (given the manufacturing raw materials for tank containers are commodities such as stainless steel, nickel and molybdenum).

## What lessors can be acquired?

What novel investment idea can you put to the Board on Monday? Any investment proposal would include an investment rationale; an estimated value of the proposed transaction; a market overview (size, growth forecasts, key competitors, etc); a list of the key risks and mitigation strategies, and

a proposed business plan highlighting the key milestones.

But, fundamentally, what is the opportunity in the tank container leasing sector? No good going to Omaha, Nebraska to ask Warren Buffet if he wants to sell Exsif Worldwide (a subsidiary of Berkshire Hathaway's Marmon Group) and its 52,000 fleet. The Sage of Omaha's position is clear: "We have no interest at all in selling any good businesses that Berkshire owns".

His view is that "selling good businesses isn't worth it at any price", although his buy-and-hold philosophy has sometimes been bad for Berkshire's financial performance. Mr Buffet even holds on to poorer-performing businesses longer than he should in some cases, on the basis that they produce at least some cash returns. All in all, no chance of corporate action with Exsif then.

What about HNA-owned Seaco Global, with its fleet of 42,000 tank containers? Well, Seaco is controlled by HNA's Shenzhen-listed Bohai Capital Holding and has been for sale since February as part of HNA's efforts to increase its liquidity and slash one of China's biggest corporate debt piles (\$79bn) by divesting assets. The Fortune Global 500 Chinese conglomerate acquired Seaco from GE Capital and the now-defunct Sea Containers for \$1.05bn in 2011, subsequently

buying Cronos in 2015.

There is likely to be strong interest from several container industry players including COSCO/Florens, Textainer, Triton and, possibly, tank container manufacturer CIMC. With an expected value of well over \$1bn, there is little chance of an investment opportunity for new entrants with, say, \$500m to invest.

Ermewa-owned Eurotainer is third largest of the global tank container lessors, with 35,000 tank containers, so is there an asset management play worth considering? Not really – Ermewa primarily focuses on leasing rail cars and locomotives, and has for over 50 years, so its interest in tank containers is a recent commitment. Eurotainer's acquisition of owner-managed TML in July brought 5,000 owned and managed tank containers into Eurotainer's fleet and eliminated a minor competitor.

Ermewa has been owned by SNCF Logistics since 2010 so, although there is a chance that Eurotainer will be spun off by SNCF Logistics, it doesn't appear a near-term opportunity.

Trifleet seem committed to their independence, at least while the current owner/managers run the company, and would no doubt have had several offers, not least from their strategic partner, Bermuda-based box container lessor Textainer.

Olivier Ghesquiere, the CEO of Textainer knows the tank container sector well, having been the Chief Operating Officer and CEO of Ermewa.

Triton and TAL International completed their so-called 'merger of equals' in 2016, creating a fleet of 4.8 million General Purpose dry freight TEUs. Triton/TAL's tank container business of 13,500 tank containers – less than six per cent of the global leasing fleet – could be viewed as incidental to Triton International's box container business and so could, conceivably, be spun off via a management buy-out or trade sale.

The remaining global lessors are smaller and include Raffles (11,500 tank containers), TWS (8,000), Japan-based NRS (7,000), US-based International Equipment (6,000), CS Leasing (5,200) and Multistar Leasing (5,173). Other lessors have a minor position, including Albatross (Sinochem International Logistics), Combipass, GEM, GRP Multilogistics, Matlack, MCM, Noble, Peacock, Tankspan, Tristar Engineering and Unitas.

For the purposes of Monday's Board presentation, none are suitable as the opportunities presented by these individual companies seem too small scale for the \$500m of seed and growth capital that has been made available to the investment manager by institutional investors.

## A novel investment?

One thing is certain – tank container leasing has the ability to provide investors with long-dated income streams backed by real, tangible assets. But what could be the investment opportunity to excite the Board? One possibility is to aggregate some of these smaller lessors, reposition the larger entity and then sell the assets to institutional investors such as pension funds, providing them with income-generating

assets to match their long-term liabilities. This logic underpinned Ontario Teachers' Pension Fund acquisition of SeaCube Container Leasing in 2013 – like many pension funds, it focuses on direct investments with steady cash flow, long-term growth potential and a low-to-moderate level of risk to match the fund's long-term obligations to pay teachers' pensions.

Uniting a group of smaller tank container leasing companies into a single larger leasing company would have the added benefit of entering the sector at a favourable point in the cycle, given that asset values are recovering and there are signs of strengthening per diems in several regions. A growing global tank container leasing market would have a favourable yield compression, reflecting greater confidence in the growth and security of the income streams of lessors.

## Executing the strategy

Returning to our Board problem, how best to recommend the execution of our tank container aggregation concept? Simple – buy one of the smaller lessors and use it as a platform to bolt on others, thereby creating the scale necessary to be a strategic player in the sector.

The value in creating a portfolio of lessors could then be realised by financial engineering (i.e. refinancing the portfolio on more favourable than the smaller entities could achieve) and/or exiting the business in time through an IPO or trade sale. Importantly, the initial lessor would provide both operating and finance leases.

In an operating lease, the leasing company takes the residual value risk and is responsible for maintenance (if a maintenance contract is taken). The lease covers only a part of a tank container's economic life and, unlike a finance lease, an operating lease is an off-balance sheet item.

The Board would therefore be asked to provide equity and debt funding, available from institutional investors, to acquire a small lessor that would have others bolted onto it. The leasing sector has several financially-attractive characteristics: stable long-term returns (tank containers have an economic life of up to 20 years with well-maintained containers in service for longer); long-term operating lease terms of, typically, five years; tank container utilisation is relatively high over the cycle; operators are supplementing their owned fleets with leased tank containers to meet incremental demand; per diem rates are correlated to underlying interest rates; tank container prices are close to historic lows and are correlated to commodities by the stainless steel used for manufacturing; the customer base is diverse with weak purchasing power; barriers to entry exist (not least because of the requirement for management expertise, customer knowledge and supplier relationships, infrastructure and technical knowledge). Lastly, there is a low risk of asset obsolescence.

One warning to give is that the near double-digit leasing rate returns achieved in the first half of 2018 will be pressurised by higher prices for new tank containers (although prices are currently held back by the stock overhang at tank manufacturers).

Buying an existing tank container leasing company can therefore be a viable route to overcome these market entry barriers. This would provide the kernel to bolt on further acquisitions, before repositioning and eventually selling the new leasing entity.

The big question is, which one to buy?

As a hedge against it all going wrong and being fired, you should remind the Board that the safest way to double their money is to fold it over once and put it back in their pocket.



# The outlook is cloudy

## Jan van de Nes explores some dedicated software for tank container M&R

The use of Big Data is coming to the tank container world. By definition, there is a lot of Big Data, involving individual tank containers to every item that makes up their components.

Every tank container is, of course, unique and operators need to know where a tank container can be found, what condition it is in, when maintenance is required, when it can be done and by whom.

Tank container lessors also need to know which tank container can be put into operation, at what moment and at what price. In addition, transport companies and other logistics service companies need to know when and where a tank container can be picked up and what specifications there are relating to its load. Repair specialists may also need to be informed.

Because of the increasing number of tank containers, and the increasing number of users of Big Data, special software is needed to handle the enormous amount of information. It is now available thanks to a different way of thinking about software.

### Logistics Cloud Suite

Logistics Cloud Suite is a digital logistics system which has been developed by Adaption Business Software BV, operating from the Dutch city of Sliedrecht near Rotterdam.

The company develops standard software for logistics using their new Logistics Cloud Suite with Portals. The suite contains an easy-to-use pack for renting

containers (called Rental), for maintaining and repairing containers (called M&R) and Portals for every participant.

"The Logistics Cloud Suite is a leading tool", Adaption Managing Director Toon Schilder says, but it is part of an evolving development process.

"Every three months a new release is presented, which can be implemented easily. New users don't need a learning period because of the intuitiveness of the software.

"And it's a speciality that the two Suite parts, M&R and Rental, create Big Data by themselves. Just remember the enormous variety in data from tank container parts, the field of use, the different volumes, the different specifications in terms of safety, the varieties in rental periods and worldwide users.

"All this data is automatically gathered into the Suite's libraries

and are available for any user. The whole system really is future proof", according to colleague manager Ronald Korporaal.

### Usable for all

Korporaal says: "We shouldn't forget that this solution is usable for both IBC's and all kinds of tank containers. The system works with all the onboard sensors on tank containers, including temperature controllers, inspection sensors and positioning sensors.

"It reads the tank container's operating conditions and pressure components, saving the information on content - important in case of chemical content - while allowing users to choose intermodal transport possibilities via pre-defined scenarios", Schilder states.

Working with the individual Suite components is easy, according to the two Adaption directors.

"Filling in the information in the Suite components comes with a smart way of Work Flow Management and the use of the libraries. It leads in a simple way



Ronald Korporaal (left) and Toon Schilder (right) started the Adaption Business Software company. Hoyer was their first client for the M&R and Rental modules

to helping make estimates of work orders and to complete rental orders, including tariff fees that are sourced from the libraries. Quotes are directly sent to supply chain partners and orders come in real-time. The whole system is data-driven and – very important for repair and maintenance companies – the equipment can be presented in 3D on computer screens worldwide.

"When work is completed, the operator can issue an invoice and send it directly to its supply chain partners".

### **Tremendous need**

Toon Schilder and Ronald Korporaal started as software developers with various large Dutch software companies. They had contacts with several leading logistics companies and found a tremendous need for reliable logistics software.

"Most logistics companies use costly custom-build software packs or large ERP packages which come with long development and implementation times", Schilder says. "But they often have remaining problems with their systems. Slow in use, not flexible, not using all the information available and often out of use because of software bugs.

"While working for the software companies Ronald and I were more active as problem solvers for unexpected bugs than developers of problem-free systems with value-adding possibilities. We decided we could do better".

This decision led to the new company Adaption, which is fully owned by these two enthusiastic managers.

"Our goal is to present 'excellent digital logistics' solutions", Ronald Korporaal explains. This ambitious goal is reached by developing standard software modules. A user only pays for the module in use and

### **The first client**

Leading international logistics service operator HOYER – with over 39,000 tank containers – is the first user of the M&R and Rental Modules. Depending on their operational use, the tank containers are inspected on a regular basis for damage and for scheduled maintenance with specialised maintenance and repair companies.

"We decided to replace our old equipment system because we could no longer register all the detailed data from the Maintenance and Repair (M&R) activities on all our tank containers", Hoyer's Chief Information Officer Peter Jürging says. "With Adaption's new M&R software, this problem is solved".

All communication between Hoyer's worldwide depots and its M&R staff members go via the new M&R Portal. The workshops put an estimate about their activities into the portal and the M&R staff member at Hoyer's HQ assesses this estimate. The workshop is instantly notified the moment an approval is given.

This communication is many times more efficient and faster than the previous system, which involved Hoyer's M&R staff phoning or emailing information. Now, thanks to the large amount of data, Hoyer can determine - much earlier - the preventive maintenance required for every tank container, thereby saving repair costs.

will find every module as flexible as possible. The software can be used in a broad range of logistic services because of the use of Big Data, which is stored in the Suite's libraries.

### **Bug-free**

"Based on our idea that software has to be intuitive in use, completely bug-free, of outstanding quality, very flexible to adapt for specific needs and capable of being used in logistic chains, we decided to contact a variety of logistics companies to learn about their needs and wishes.

"We found there was insufficient software available, especially in the tank container sector. Most of these companies use large ERP software packages, which are known to be inflexible and not sufficiently supportive for the transport sector.

"We thought we could develop a system for every logistics supply chain, to be used by every supply chain partner. In our Logistic Cloud Suite, every chain partner has its own Portal but

communicates to every other partner in the Suite with its specific information available from the libraries.

"This idea led to the development of our specialised software solutions. Of course, it is completely bug-free, is very flexible but is built from standard modules, is relatively cheap and instantly implementable", Schilder explains.

Korporaal says that their contacts with organisations like the EPCA and large transporter and logistics companies such as Hoyer gave them the information they need to build their new software.

"We started to digitalise the tank container transporting, maintenance and repair world", he says.

In the near future, Adaption will bring a generic portal for the worldwide tank container market for everyone searching for the status and location of any tank container. It seems to be a logical next step in the development of the 'Excellent Digital Logistics' Program.





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#### Project examples:

- Commissioned by the Gulf Petrochemicals and Chemicals Association (GPCA) to produce the seminal study of the Middle East petrochemical supply chain
- Produced the world study of the tank container market and players
- Identified Middle East partners for world leading tank container operators and leasing companies
- Identified tank container acquisition targets
- Produce the quarterly 'Middle East Tank Container Market Review'

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# 'Interesting times' for India's tank containers



If China is Asia's dragon, India is its tiger, and with GDP growth of around 7%, it is now the world's fastest-rising major economy, writes James Graham

According to the sixth edition of the *Indian Container Market Annual Report* (developed by Maritime Gateway and consulting firm Drewry Maritime), "these are indeed interesting times" for Indian container trade.

The authoritative report notes that the country has seen a relaxation of cabotage rules and Direct Port Delivery to "ease the woes of shippers, while expediting the movement" of boxes and tank containers while it "attempts to capture the pulse of India's containerised trade and the performance of ports and terminals on both coasts of India."

According to Ramprasad, the report's editor-in-chief and publisher, this reflects the trade performance in India in 2017-18, when throughput at Indian container terminals was 15.4 million TEU. This represented year-on-year growth of 12 per cent, during which time installed capacity grew to 27.1 million TEU.

Imports and exports grew by 16 per cent and 7 per cent respectively, significantly higher than the estimated global containerised demand growth of 3-4 per cent. This reflects the positive trajectory of the Indian container market, notes Ramprasad.

Industry observers note that there has been a shakeup in the container industry in the name of liner consolidation, digitalisation and infrastructure upgrades in India.

## Rebound

However dramatic this seems, it has created the conditions for a rebound in trade that shows the country's economy has been able to deal with these market dynamics, including the impact of regulatory reforms such as demonetisation and the implementation of General Sales Tax.

India is a developing mixed economy. It is the world's sixth-largest economy in terms of

nominal GDP and the third-largest in terms of Purchasing Power Parity. The long-term growth prospective of the Indian economy is positive due to its young population, correspondingly low dependency ratio, healthy savings and investment rates and its increasing integration into the global economy.

Growing import and export trade activity, much of which depends on the use of tank containers, has attracted many European, North American and Asian shipping lines, together with tank container lessors and owners.

The complexity of the country's ports and transport companies – and indeed the country itself – means many of these foreign operators and shipping lines cannot, or will not, do business directly in the country. Instead, they appoint agents to solicit cargo for their tank containers. These include Exodus ChemTank, Oceanglobe,



Amfco Agencies, CEL Logistics and Faredeal.

Sushil G. Thakre, executive director and member of the board of Mumbai-based Exodus ChemTank is very positive about his company's prospects.

He says: "We are on the cusp of a very big growth orbit. Internationally, we have an impeccable name and we are building on our brand reputation to reach more sectors and customers every year.

With an expanding fleet, and with deep and well-spread technical knowhow about tank engineering and chemicals, we expect to quadruple our revenue and financials in the next three years."

### Quick thinking

Founded by managing director Rajesh J. Purohit in early 2007, Exodus ChemTank was established to provide services and products to "cater intelligently" to the Indian chemical industry for the storage, transportation, shipping and delivery of all kinds of chemicals, such as gaseous, liquid, granular, or solid "in the most intelligent, specialised, optimal and cost-effective manner," says the company.

"Businesses and economic demands are becoming increasingly cost-stressed with no compromises allowable on quality and deliverables. In such a situation, quick thinking and quicker decision making, based on rapid cost matrix flexibilities, will determine the growth trajectory of any enterprise."

Exodus ChemTank has offices in India, Singapore, Thailand and the United Arab Emirates and is a group company of the ECT Corporation. It was primarily established to own, operate and facilitate agency services for its own tank container fleet as well as the fleets of partner tank container companies.

Thakre says: "We are a tank container operator with a fleet size

of over 800 tank containers and growing."

Exodus ChemTank continues to talk with container lines and container fleet owners so that when there is an opportunity to represent one, the company will take it, he says, though there "is no set agenda for representing anyone, as such".

He says: "We ship our tanks to over 60 countries, some very actively and some as and when the need arises. We also offer our tank container services on a Pan-India basis for catering to the Indian export market.

"While the awareness about tank containers has been steadily growing, the pace has picked up in the last 10 years. Given GDP growth of 7.8 per cent, there is still a lot of untapped market and development possible, which we continuously focus on.

"Every year, without fail, we see at least 20 new customers who have started using tank containers for their imports or exports, which is amazing."

According to Thakre, the Indian tank container market has been stable for a number of years, enabling steady growth and investment in the market.

He says: "India has traditionally been a balanced market for several decades. Minor aberrations due to global macroeconomic conditions

or geopolitics do have a say though."

Economists highlight that there are 33 major group categories in Indian traded commodities including pharmaceuticals, fabric/yarn, steel products, reefer food products, readymade garments (RMGs) and textiles.

The RMG and textile sectors have traditionally maintained the top position in India's export basket. Chemicals – the interest of Exodus ChemTank – followed RMG and textiles with an export value of \$20 billion in 2017, a ten-fold increase since 1997.

### Chemicals

Although the US is the top export destination for Indian manufactured chemicals, India exports a considerable amount of chemicals to China. On the import side, India imports chemicals mostly from China, Saudi Arabia, the US and Singapore. These four countries account for more than half of India's chemical imports, in terms of value.

The trade in manufactured chemicals, rather than food or drink exports, means that there are more non-food grade tank containers in use in the country than food grade tank containers, notes Thakre.

He says: "Presently there is more non-food tank container traffic, although there's also a large food grade tank market. Both have been



*Economists say there are 33 major group categories in Indian traded commodities*



*Amfco Agencies, based in Mumbai, has developed a successful business by representing a UK logistics and tank container operator*

growing at a very good rate."

The growth has been supported by several depots and cleaning stations at the major nodal points, primarily at ports and dry ports.

He says: "This is good as it saves a lot of repositioning costs and acceptable repair standards are now available at many places. Here too we have seen a sharp growth, which is very good from the proliferation point of view."

Oceanglobe Container Services (OGCS) was the first tank container depot operator in India to have been approved and registered by ITCO. It opened a new 18,000 sq m depot in Saykha, Gujarat in June 2018 with 4,000 sq m of covered workshop.

The depot has all the facilities necessary for undertaking repairs to all types of marine containers, including pre-fabrication jobs.

The company, part of the DBC Group founded in 1928, offers Indian tank container users and lessors storage, repair, maintenance of tank containers in IMO 1, 2, 5 and 7 classes.

## Cleaning and repair

OGCS was created to undertake the cleaning, testing, repair and refurbishment of all types of marine containers, mainly reefer and tank containers used for carrying perishable and chemical cargo.

Container operators that work with Mumbai-based OGCS include Bertschi AG; Bulkhaul (Singapore) Pte Ltd; Chakiat Shipping & Logistics Services; Eagletainer Logistics Pte Ltd; Faredeal Shipping

Agencies Pvt. Ltd; Goodrich Maritime Private Limited; Hoyer GmbH; Innova Refining & Trading FZE; Interflow (Tank Container System) Ltd; Intermodal Tank Transport; Katoen Natie; LeadEdge Logistics Pvt Ltd; Lexsau Scharbau GmbH & Co ; M&S Logistics; NewPort Tank Containers; Nippon Concept Corporation ; Peacock Container B.V; Suttons International and VOTG Tanktainer Asia Pte. Ltd.

Amfco Agencies, based in Mumbai, has developed a successful business by representing a UK logistics and tank container operator, according to managing director Farhad K Cooper.

He says: "Amfco Agencies has represented Suttons International exclusively in India for 17 years. Suttons is headquartered in the U.K and is a privately-owned company that has been consistently and successfully delivering high quality, cost effective, international logistic services."

Despite the successful relationship with Suttons, Cooper could still represent other tank container operators. He says: "We would be interested in representing a pure food grade operator that has no chemical tank logistics involvement as Suttons does not cater to specialised food grade cargoes in India."

Amfco Agencies works on an all-India basis which gives Cooper a deep understanding of business activity in the country. He reflects on business confidence in the world's most populous democracy, saying: "In KPMG's 2018 report, "A Bright

Future For The Indian Chemical Industry", total chemical sales are reported to grow from \$139 billion in 2014 to \$214 billion by 2019. This shows that this industry is on an upward trend."

The report cites that major challenges remain for the Indian chemical companies, which is highly fragmented and intensely competitive. Because 100 per cent FDI is allowed, domestic players can face stiff competition from foreign multinationals that have the ability to exert strong price pressures on local markets. Huge capital requirements, patent protection, R&D costs and personnel requirements present other challenges.

## Opportunity

Cooper continues: "For every challenge there is an equal, if not greater opportunity. The fact remains that the centre of gravity for the global chemical industry is moving to the East and Indian chemical companies are well-positioned to take advantage of this transition."

Safety being paramount in the industry, most multinational corporations and local conglomerates are opting for liquid logistics in tank containers for international and domestic use. This is slowly pushing India to increase its appetite for tank containers as they need to follow suit.

"New chemical facilities in India are being designed specifically for handling tank containers. A handful of Indian companies such as Aarti Industries Ltd, Industrial Solvents, Excel Industries Ltd, Transpek Industries Limited and Shiva Pharmachem Ltd are now buying brand new specialised, lined tank containers, or second-hand tank containers, for the carriage of high value and/or corrosive cargoes internationally and domestically.

"Tank container operators such as Suttons go all-out to achieve high standards of safety by auditing their



hauliers and cleaning/Maintenance & Repair depots. They not only educate them but incentivise depots that regularly pass their audits. This has undoubtedly pushed up standards in India. According to Cooper, Suttons are investing in 1,000 new tank containers a year and refurbishing 300-500 tank containers a year. Further investments are being made in specialist equipment such as e-heated tank containers and GPS.

### Competition

"As competition has increased due to the increase in chemical production and the number of operators, margins have been squeezed in all lanes. This has helped the tank container industry eat into the flexibag-based non-dangerous goods market. This has further been escalated as result of the ban on single use plastics in many countries, and the concerns on flexibags safety with regards to leaks. Many shippers are slowly switching from using flexibags to tank containers," he says.

The Indian tank container market is steadily maturing, notes Cooper. He says: "In the last couple of years, ancillary stake holders have either entered India directly, or through agents, to offer a steady supply of high-quality equipment, products and services.

"Progressive depots are now installing automatic tank cleaning systems to achieve higher cleaning standards, to be capable of cleaning to European standards. Two depots in India have already installed market leading equipment from Gröninger Cleaning Systems and others are in the pipeline.

"Tank containers carrying corrosive cargoes are now being coated in India with APC's Chemline 784/32 corrosion protective coatings. Based on their success, several other coating brands are looking to get a foothold in India.

"Dirac Industries' electric heating solutions for maintaining accurate



*The heavy industrial nature of much of Indian business has created an imbalance between food and non-food grade tank containers*

temperatures in tank containers, bag-in-box units and IBCs are now being fitted and installed in India. High quality gaskets, sealing technology and valves are now easily available and well-stocked in the Indian subcontinent. Brands such as Girard Equipment, VSP Technologies and Sunpass are commonplace. All these factors enhance the use of tank containers in India."

The heavy industrial nature of much of Indian business has created an imbalance between food and non-food grade tank containers, observes Cooper. He says: "India, being predominantly a chemical market, is using more non-food grade tank containers. However, food grade cargoes such as alcoholic beverages are being imported while cargoes such as castor oil, sola lecithin, Extra Neutral Alcohol (ENA) and glucose are being exported from India. The percentage for carriage in food grade tank containers is in single digits."

There are two aspects to be considered when considering the balance of Indian inbound and outbound tank container traffic flows. Cooper says: "Imports and exports of tank containers in the Nhava Sheva region are well balanced but there is significant imbalance in other regions. Imports, for example, are greater than imports in Calcutta and Chennai.

"There is an overall imbalance of tank container flows between individual countries and India. This

creates very low margins to certain countries where the "forward" demand for tank containers in a certain country is high but imports of tank containers are low.

"A great example is tank container exports from India to Singapore, which are limited. However, the forward demand from Singapore to other destinations is very high which encourages operators to move tank containers to Singapore at discounted or negligible margins."

### Depots

As in other markets, tank container loading and discharge in India is done at chemical plants or tank farms, depending on logistical requirements. Most tank container cleaning depots in India handle cleaning and M&R work. The greatest concentration of depots is in the Nhava Sheva region with other depots based near Delhi, Kandla, Hazira, Ankleshwar, Bharuch, Chennai, Mangalore and Vizag.

Cooper says: "Amfco is a one-stop shop for the tank container industry in India. Our main focus is to represent companies that are dedicated to - and specialise in - tank container operations, M&R work and tank container customisation."

Companies represented by Amfco include Suttons, IBL Flexitank, Gröninger, Girard, Advanced Polymer Coatings, VSP Technologies, Dirac Industries, Sunpass and Crane Composites.

# India rising

*Tankcontainer Magazine explores the contrasts, contradictions and opportunities for petrochemicals and tank containers in India*



Mukesh Ambani

What do you give the wife of the owner of a \$1 billion house for a birthday present? A 320, of course. Not a BMW 320 but a \$99m Airbus 320, so she can visit her charities in greater comfort. Such are the contradictions between wealth and poverty in India.

Mukesh Ambani's fabulous wealth has come from the Reliance Group, the company his father founded as a polyester firm in India in 1966. This provided a local source of synthetic fibres and yarn to India's huge domestic textile industry - the company is now the world's second largest producer of polyester fibre and yarn.

The group later entered the financial services, petroleum refining, petrochemicals and power sectors. It is strongly vertically integrated through refining and petrochemicals, thereby releasing huge cost savings through operational efficiencies and economies of scale.

Today, Reliance Industries Ltd (RIL) has a market capitalisation of \$100bn, is India's most profitable company and, with revenues of \$66bn, is one of the world's largest petrochemical companies. It owns the largest refinery in the world, located in Jamnagar, Gujarat, with a capacity of 1.24 million barrels a day. Uniquely, the off-gases from the massive refinery are enough to provide the feed for a downstream petrochemical cracker. The petrochemicals side of the company

is now split into polymers, polyesters, fibre intermediates, aromatics (paraxylene, benzene and linear alkyl benzene) and elastomers.

Its aromatic complexes are located on the west coast of India, in Patalganga in the state of Maharashtra, and in Jamnagar in the state of Gujarat. RIL also operates purified terephthalic acid (PTA) facilities at Hazira and Gandhar in Gujarat. These units consume paraxylene. In addition to the captive consumption for PTA, RIL exports large quantities of paraxylene in tank containers to some of the leading petrochemical companies in Asia from its Jamnagar facility.

Orthoxylene is the second largest of the three commercial isomers of xylene and is used for the production of phthalic anhydride. RIL produces it at the integrated refinery complex at Jamnagar and is one of the leading producers in the world.

RIL also produces benzene in Jamnagar, Hazira and Baroda on the west coast of India. The company is one of the largest global merchant exporters of benzene with exports in tank containers to the US, Europe and Middle East. Lastly, its LAB plants are located at Patalganga, Maharashtra and Vadodara, Gujarat.

It is also the largest user of tank containers, which are used for a wide range of imports and exports. More generally, the trade flow for

tank containers runs through the ports of Jawaharlal Nehru Port (also known as Nhava Sheva), Kandla/Deendayal port on the west coast, Mundra (opposite Jamnagar and the largest private port in India), Visakhapatnam in Andhra Pradesh (also known as Vizac) and Chennai, the third largest container port in India.

Nhava Sheva, located east of Mumbai, is the country's largest container port and is commonly referred to as JNPT (Jawaharlal Nehru Port Trust) by those in the tank container sector. The port handles about 55 per cent of the country's containerised cargo. Tank container imports, with their country of origin in brackets, include liquid bromine (Israel, Jordan); para-dodecyl phenol (US); propionic acid (Sweden); tetrahydrofuran (UAE, Spain); formic acid (Germany); cresylic acid (South Africa); propylene oxide (US); heptane (US); glacial acrylic acid (Malaysia); ethyl pyrrolidone (US); methacrylic acid (Republic of Korea); iso decyl alcohol (Japan) and lube oil additives (Singapore, Belgium). A wide range of refrigerant gases are also imported in tank containers from China, such as R4040a, R407, difluoromethane/HFC-32 and 134a tetrafluoroethane.

Unsurprisingly, the area around Nhava Sheva has the highest concentration of tank container depots and cleaning stations with



other key locations including the Kutch district in Gujarat, close to Jamnagar.

Demand for petrochemicals has grown by over 8 per cent annually over the past five years with the sector viewed as being one of the stalwarts of the Indian economy. Indians born today will consume thirteen times more petrochemicals than their grandparents. India's state oil refiners - India Oil Corp, Bharat Petroleum and Hindustan Petroleum Corp - are all investing heavily in petrochemicals with \$35bn of investment planned in anticipation of an expected surge in demand. "India is one of the fastest growing economies globally, but our petrochemical use is one-fourth the world average. We import half of our petrochemical consumption," says S. Mitra, executive member at India's Chemical and Petrochemical Manufacturing Association.

Molecules of hydrocarbon will be diverted by the refiners into petrochemicals rather than transport fuels as a strategy to provide an alternative line of revenue while adding to gross refining margins. In general, petrochemicals are viewed as an essential element of a refiners de-risking strategy.

Petrochemical growth has been fuelled by strong Gross Domestic Product increases, a change in consumer behaviour and priorities, and by government initiatives. Per capita annual consumption of 10 kg petrochemicals in India is one of the lowest in the world and far below the world average of 30 kg. The \$20bn market is forecast to grow to \$70bn by 2030 but is not without challenges - these include an under-developed logistics infrastructure for tank containers. World-class centres such as Rotterdam, Fujian and Singapore need to be emulated with consideration given to fiscal incentives such as corporate tax



exemptions, duty allowances and discounted interest rates on debt.

One of the reasons for a major Indian petrochemical producer to 'go digital' was to eliminate petty pilfering by employees. It was concerned that its drivers were siphoning off gasoline from its road tankers. However, the drivers claimed that they were not formally paid a wage by the company but that, to compensate, their local management turned a blind eye to them helping themselves to modest amounts of gasoline.

More creatively, a consignment of polymer granules was shipped from India to Shanghai in a locked 40-foot container. On arrival, the weight was exact to the kilo but was found to contain bricks instead of the polymer, which had far more value.

According to A.T.Kearney, incentives such as import duty waivers on feedstock and cheap credit are lower in India than other Asian countries, whilst investor-friendly processes such as single-window clearance, policy support for land acquisition and established industry bodies offering business advice and support are lacking.

As in China, there is a drive in India to divert more cargo from road to rail. One development is the running of so-called dwarf containers on trains. These containers are Lloyd's Register-certified and shorter than the standard ISO dimensions so double-stacking can be deployed. The containers have over 65 per cent more volume capacity and 16 per cent more loading capacity compared to the standard ISO containers. Designed by Techlog

Support Services, the trial run of the dwarf containers was done by Pristine Logistics. The company has acquired the container train operating licence from Reliance Infrastructure and moved cargo from RIL's Jamnagar refinery. RIL had offered an additional two million tonnes of annual cargo, increasing the overall tonnage moved by RIL on Indian railways by 25 per cent.

Concept trials took place between Jamnagar and Ludhiana with confirmatory trials done by Pristine Logistics between Ambala and Jamnagar. Dwarf containers are likely to attract customers from the liquid petrochemicals sector and can run on all of India Railways' main routes, which are electrified.

What of tank container manufacturing in India? Volumes are small-scale but current manufactures include BNH Gas Tanks, Sunrise Process Equipments, Shree Bhagwati, Hariom Fabricators and INOX India in Kalol and Kandla. Typically, the pre-requisites for viable tank container manufacturing are the availability of raw materials, technical knowledge, locally-available financial incentives and the immediate possibility of cargoes for new containers. The skills required to make good quality silo and barrel road tankers do not necessarily translate into making quality tank containers. India's fundamentally weak currency - the rupee has nearly halved in value against the US dollar in the past 10 years - may benefit sales, as they did in South Africa many years ago, but would raise costs for imported raw materials.

# Needa hand?

**DepotMan is Needa Technologies' new software for digitalising tank container terminal operations.**

**Arpita Sharma reports**

The shipping industry is constantly strengthening its systems and processes with technology to deliver safer and more effective solutions to facilitate global trade. One aspect of this is the initiatives being taken by ports, customs authorities, shipping lines, freight forwarders, and technology start-ups to build a technology-enabled, interlinked ecosystem.

Global trade is also being supported by the efforts being made to modernise shipping by technology companies that are building high-tech platforms for ancillary service providers like the container depots.

One such company is US-based Needa Technologies Inc., which is working to digitalise tank container depot operations.

Needa Technologies has its support centre in Hyderabad, India, which is staffed with 100 IT professionals from 'verticals' such as Oracle ERP, database management, networking solutions, data centre design and strategy. These service the company's global clients.

"The company has been in the IT industry for 15 years. Our current annual turnover is approximately \$3m", says Sayantani Halder, Business Analyst at Needa Technologies' India operations.

The company's latest offering for the tank container shipping industry is DepotMan, a software solution that is tailor-made for

container depots.

DepotMan was launched in 2014 and is a specially designed ERP software package to support tank container terminal operations.

"Ideas always come from problem solving. During a discussion with a depot operator, we got insights into the issues they were facing even though they were using software in their depot. We realised that while most depots use software, the use is generally limited to handling the financial aspects of the business.

"The other depot operations still required a lot of paperwork. Hence, we thought about creating a software solution that could digitalise the entire end-to-end depot operations. This would reduce paperwork but also improve overall turnaround time.

"This led us to develop a software which is end-to-end, intuitive, flexible, low-cost, easily customised, scalable, and secure," says Mahesh Siripurapu, Chief Operating Officer, Needa Technologies Inc. India operations.

DepotMan provides a digital environment for the tank container depots to standardise and systematise their operations across depots while communicating effectively with their customers.

Sharing his views on why digitalisation is important for the industry, Mahesh says.

"Digitalisation or automation is

good when you have an IT partner which can provide an accurate and secure solution. You can then easily leave most of the operational processes to the software while you focus on the business. Technology helps reduce the overall turnaround time, updates the customers about status changes, creates a transparent system and it makes compliance easier. These aspects are the key to success for any depot or shipping Line.

DepotMan brings all these capabilities to depot operations, enabling the depot to focus on its business and customers."

The product was developed after two years of rigorous study and research. It aims to streamline the operations at tank container terminals and helps depots create a seamless process for monitoring the tank container at every stage from the moment the tank container reaches the facility. The software can be easily integrated with different system configurations and hardware.

"The tech stack is built completely on Angular and PHP technologies and offers easy integration with quite a few open source products. We have built adapters that integrate our software with other existing software. However, since DepotMan can handle all the operations in a depot with utmost accuracy while safeguarding data, we don't see a need for other ERPs to exist in the depots," says Halder.

"DepotMan is a turn-key, end-to-end, user-friendly and cloud-based software package requiring minimum interactions to complete one operation. It is a multi-user platform which offers hierarchical access control at every level. The platform also allows the depots and their customers to stay connected to the business at all times", says Halder.

The platform enables the depots



to track each customer's tank container from the time it enters the depot. DepotMan records and maintains all the information on the tank container's physical location and track any requirements for repair and cleaning, approvals received from surveyor and customer, and the workshop process. Once the tank container is out of the workshop, the final photographs are shared with the customer. The customer's approval is taken at each stage of the process. Photographs of the repaired and cleaned tank are uploaded in the system and can be viewed directly by the customer through the customer portal.

When an approval is received for the work done, an invoice is raised through the platform. DepotMan has a simple, flexible and easy to understand invoice format but the customer's preferred invoice format can be integrated if needed.

Through the process, customers are kept informed about the current status of their tank container by a daily report which is generated automatically. This report provides customers with the current status of their tank container in the depot and provides pictures of the equipment.

In addition to tracking the tank container throughout the repair and cleaning process, the software also has different modules that enable a depot to manage the customer database, monitor the inventory, plan tank container placement in the yard, schedule future tests, manage billing and invoicing, and generating reports.

New features will soon be introduced to make it simpler for customers to manage their tank containers.

"Since the software is completely built and functioning smoothly, we are now focusing on developing a mobile app and are also adding additional features

like analytics dashboard.

The analytics dashboard will be a Single Page Application (SPA) which will depict the overall health of the depot; show ageing tank containers, assigned and in-process tank container jobs, department performance, ageing receivables and ageing payables", Mahesh says:

"Besides providing the software, we also help customers design the network and hardware architectures. The goal is to reduce the infrastructure at customer's end, thus, reducing the maintenance costs", Haldar adds.

When implementing new technologies, companies understandably prefer to minimise their financial exposure before they completely understand how the software will benefit their business. So, while companies want to implement new and better software, they also want to minimise the risk that might arise from adopting a new ERP system.

Understanding this dilemma, DepotMan offers its customers a free-of-charge two-month trial period with no strings attached. After the trial period, the customer may choose to purchase or discontinue the services.

The price of the software is €6,000 for ten users for one depot facility for the first year. This business model benefits the depots in two ways - they get an understanding of how the software works and can become familiar with how it can help them reduce tank container turnaround time.

Moreover, revenue leaks are restricted. Quick turnaround time and restricted revenue leaks help customers recover the software cost in no time. It also helps the depots make an informed decision while keeping a check on their return on investment" says Haldar.

Speaking about the customer base that DepotMan caters to and its marketing strategy, Haldar says that they have around 25 customers globally. The company is currently not aggressively marketing the product as they believe in stabilising one customer before moving onto another.

While DepotMan is well-known for its work with tank containers, the software can also be used as efficiently for managing dry and reefer container depots.

"The software is not region-specific. 90 per cent of the software is tailor-made for all the regions and 10% localisation will be done to comply with the needs of the specific region where the depot operates. Most of the localisation that we do is for taxes and financials modules," says Haldar.

"In India, our market share is around 10%. However, going by the response we are getting from new customers, we are hoping to capture 30 per cent of the market in the next couple of years. Currently, turnover for the software is around \$50,000 and we are hoping to generate a revenue of \$1 million by mid-2019", Mahesh says, referring those interested in DepotMan and its services to depotman.in.



*The repair and cleaning cycle that a tank container goes through when it reaches the depot*



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