

Tankcontainer

MAGAZINE

Volume 1 | Issue 2



Seaco Global's
John Bannister:
the critical
success factors
for tank container
leasing firms



Worldwide Expertise in Tank Containers



RESPONSIVE PROFESSIONAL RELIABLE INNOVATIVE



www.trifleet.com

Trifleet Leasing (the Netherlands) B.V.
Phone: +31 78 639 09 63
Fax: +31 78 614 22 10
info@trifleet.com

Trifleet Leasing (Deutschland) GmbH
Phone: +49 4102 708620
Fax: +49 4102 7086213
trifleet.germany@trifleet.com

Trifleet Leasing (USA) Inc.
Phone: +1 71 39 619 500
Fax: +1 71 39 611 753
trifleet.usa@trifleet.com

Trifleet Leasing (Asia) Pte Ltd
Phone: +65 65 352567
Fax: +65 65 354503
trifleet.asia@trifleet.com

Trifleet Leasing (Shanghai) Co., Ltd.
Phone: +86 21 54660331
Fax: +86 21 54660332
trifleet.china@trifleet.com

Publisher
Duvel Media
www.tankcontainermedia.com

Editor
Leslie McCune
leslie@tankcontainermedia.com

Advertising
Ed Andrews
ed@tankcontainermedia.com

Production Editor
David Badger
david@tankcontainermedia.com

Design
ginko design
hellostudio@ginkodesign.co.uk

www.tankcontainerdirectory.com

Tank Container Directory is published by Duvel Media. Copyright 2014 Duvel Media. All rights reserved. Any reproduction without permission is prohibited.

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

NEWS

5-13



Antwerp Port Authority is to purchase the former General Motors site to expand port facilities

Front Cover Interview

Seaco Global's Singapore-based head of tank containers, John Bannister, talks about the company's new ownership and what is driving the global tank container leasing market



14

EQUIPMENT



18-19

Statistics show a steady decline in apprenticeships being offered in the UK

OPERATORS



20-21

How Suttons went from horse-drawn wagons to a specialist logistics operation

SERVICES



22-23

A €6.5m revamp at the Peter Hempt tank container storage facility in Germany

ENVIRONMENT



25-27

Tank containers are providing an ideal solution for LNG logistics

OPERATORS



43-45

There is growing demand for self-sustaining heating and refrigeration systems

MANUFACTURERS



47-49

Europe has gained a new tank container manufacturing name – Multitank

REGIONAL FOCUS: THE MIDDLE EAST

INTERMODAL



28-29

Rail has been the missing link in a truly intermodal supply chain in the region, but that is changing

MARKETS



31-33

Demand for tank container services is increasing in the Middle East, but it's a patchy business

CLEANING UP



35-36

Specialised tank container cleaning has become an integral part of the local infrastructure

OPPORTUNITIES



37-39

The risks and rewards for operators associated with the expanding chemical production industry



High Performance Coatings for Lining Tank Containers

ChemLine® coatings provide superior chemical resistance to a wide array of hazardous chemicals, even at elevated temperatures. More than 4,000 chemicals and products have been successfully tested including aggressive acids, alkalis, solvents, CPPs, and edible oils.

ChemLine® is a unique high performance polymer coating that is 97% solids with extremely low VOCs. It is the preferred lining system for tanker containers, IBCs and bulk chemical storage tanks.

ChemLine® offers the flexibility to easily change cargoes after simple cleaning and decontamination, and the assurance of cargo purity from beginning to end.

For more information, contact Martin Kilroe, APC Global Tank Container Manager, martin@kilroe.com, or visit our website at www.adv-polymer.com



**HÜNI
+CO**

APC works in partnership with HÜNI GmbH + Co. KG, (Germany), a high performance coating applicator for corrosion protection with more than 45 years experience in the transport sector.



Advanced Polymer Coatings
Avon, Ohio 44011 U.S.A.
+01 440-937-6218 Phone
+01 440-937-5046 Fax
www.adv-polymer.com



Where there is change, there is opportunity

In this, the second issue of *Tank Container Magazine*, we focus on the Middle East. Look at the petrochemical hubs and arteries of the Gulf Cooperation Council member states (Saudi Arabia, Qatar, Kuwait, the UAE, Oman and Bahrain), and it is obvious that petrochemical supply chain infrastructure is in the process of transformation.

New ports, tank container depots, terminals, storage facilities, industrial zones, rail networks and intermodal capabilities are forging new and more integrated trade networks within the Arabian Peninsula and developing flexible import/export tradelane alternatives with the key markets of Asia and Europe.

Governments in the region are prioritising economic diversification as they seek to reduce their dependence on the twin pillars of oil and gas to source funds for expenditure on massive social, health, education and industrial projects. Oil revenues account for 50% of the region's GDP and 80% of fiscal export revenue. The uncertainty of inherently volatile oil prices has long been recognised as a key vulnerability.

Petrochemical activity leverages the natural cost advantage of the region, creates new job opportunities and captures the added value being exported. And production is booming, making it a pivotal player in the global market. GCC petrochemical capacity is forecast to reach 191 million tons by 2020, a 50% increase on 2012. That year, capacity increased by 6% from 2011, despite the slowdown in global markets due to recession in Europe, weaker growth in China and a fragile US recovery.

Sadara, the world's largest single-phase petrochemical project, is well on the way to mechanical completion in Jubail, Saudi Arabia, where, with Yanbu on the west coast, 10% of the world's petrochemicals are produced.

The complexity of supply chains is also increasing, with polymers and liquids requiring fundamentally different assets, knowledge and skills. The challenge of transporting polymers is managing the high tonnages produced. However, for the rapidly increasing tonnage of higher value-added downstream specialty products, many of which are liquids, the challenge is managing their hazardous nature – which is where tank containers come into play. Saudi Arabia, for example, produced 62 petrochemicals in 2012 – in 2017, 170 will be produced.

Unlike Europe, the Middle East has relatively limited experience with tank containers. However, all the major tank container operators are now established in the region, attracted by the business prospects and the need to incorporate the Middle East into their global networks.

For some, there has been a steep learning curve. Mirages are common in the desert, but are equally common in the business world of the Middle East. As Warren Buffet, the Sage of Omaha, said, "risk comes from not knowing what you are doing". In some important parts of the Middle East, the bureaucratic requirements for imports and exports can be opaque, mercurial and – quite frankly – maddening.

But many tank container operators are prospering – they have the operational skills, the right local partners and the market intelligence to build crucial relationships with petrochemical producers, traders and refineries. This patient investment in people and assets will pay dividends as tank container demand escalates.

Tank container leasing is also under-developed in the region. We talk to John Bannister, Director of the tank container division at Seaco Global, one of the world's leading tank container leasing companies. We also feature the rapidly developing Saudi Arabian rail network – part of a GCC project to create intermodal opportunities for tank container movement – and highlight two top tank container depots in the region. In time, more will be needed.

Middle East tank container customers have far less experience of managing tanks than European users. To guarantee availability, large movers of specialty chemicals may consider leasing their own fleets. But the challenge of managing them signals an opportunity for, say, a Saudi-based tank leasing company – possibly a joint-venture with a global major – which not only leases tank containers to Middle East customers but also manages the leased tanks on behalf of the customer. It's one of several new models that could develop in the region.

Lastly, we much appreciated all the very positive feedback from the tank container industry on the first issue of *Tank Container Magazine*. We welcome further feedback to make sure we are relevant, responsive and read.

Leslie McCune, Editor

A woman in a black sequined dress is holding a violin. The image is a close-up, focusing on her arm and the instrument. The background is dark and out of focus.

POUND GATES
CHARTERED INSURANCE BROKERS

Commitment that
brings certainty to
your business

01473 346046
www.poundgates.com/tankcontainer

Pound Gates
St Vincent House, 1 Cutler Street, Ipswich, Suffolk, IP1 1UQ

Pound Gates & Co Ltd, trading as Pound Gates, is authorised and regulated by the Financial Conduct Authority, and is an ISO and Investor in People accredited company.

Fort Vale: beware of imitations

It has come to light that some valve and spare parts suppliers, both in Asia and Europe, are copying Fort Vale valves and ancillaries in such a way that they could be mistaken for genuine Fort Vale parts.

These valve manufacturers go into great detail to make the valves look aesthetically identical to Fort Vale.

Fort Vale relief valves have been found with broken springs that are not genuine spare parts.

The IMDG requires that relief valves comply with EN4126. If a Fort Vale relief valve has been fitted with a non-OEM approved component, the type approval becomes null and void, the manufacturing warranty is rendered invalid and the valve is operated entirely at the customer's risk.

Although a part might look the same as Fort Vale's, it may not perform the same.

Fort Vale says all its products meet, and often exceed, the requirements of industry standards.

The firm said: "Fort Vales valves and ancillaries are designed, developed and verified in-house by experienced engineers using MAGMA, FEA and CFD software and rapid prototyping techniques. Most component parts are manufactured by Fort Vale, meaning that they can guarantee their quality and conformity.

"Fort Vale only works with suppliers that operate the same scrupulous quality ethic.

"Additionally Fort Vale has an on-site, independently approved test facility for liquid and air flow testing its valves. Fort Vale also carry out cycle testing, impact testing and strain gauge testing."

Den Hartogh renews contract with Quaker

On April 3, 2014, Quaker Chemical BV and Den Hartogh Liquid Logistics BV signed a three-year contract to continue their successful co-operation, a relationship that originated in 2011.

The agreement allows for bulk liquid transportation inbound and outbound from Quaker Chemical's site in Uithoorn.



Henk Struiwigh, Director Global Operations Quaker Chemical, said: "During the first term Den Hartogh lived up to the

spirit of the contract to supply excellent delivery performance combined with an ambition towards continuous improvement."

Jacco van Holten, Commercial Director Den Hartogh Liquid Logistics, commented: "With our team on site, including customer service and loading and delivery operators, we have become very familiar with Quaker.

"Through close co-operation we

have succeeded in changing many of the remote road deliveries to intermodal; increasing the payload and reducing the cost per ton."

The renewed contract furthers both parties' ambitions toward improving safety and increasing supply chain efficiencies.

VTG bullish despite pressure on margins

VTG Aktiengesellschaft, one of Europe's leading wagon hire and logistics companies, has presented its figures for the financial year 2013.

Group revenue rose by 2.2%, reaching €783.7m. Operating profit (EBITDA) increased by 5.7% to €183.8m. This result matches the predicted forecast range.

Exchange rate developments, imbalances in traffic flows and margin pressure triggered by excess capacity caused revenues in the Tank Container Logistics division to decrease slightly in 2013 by 2%, from €155.5m to €152.3m. EBITDA fell by 23% to €9.2m (previous year: €11.9m).

The EBITDA margin, relating to gross income, was 38.1% which was lower than the previous year's margin of 46.8%.

In the course of developing new business models, Tank Container Logistics has taken up the role of an industry partner in a global chemical transport alliance. It has taken on the controlling of transport flows of a central product area for chemical company Bayer, along with other partners.

On June 1, Günter-Friedrich Maas became executive board member for logistics and safety at VTG Aktiengesellschaft.

Mr. Maas has a background in logistics and joined VTG from international logistics company Hoyer, where he headed the Chemilog business unit for the past four years.



Antwerp Port Authority acquires General Motors site

Antwerp Port Authority has announced it will purchase the Opel site, the location of the former General Motors production plant in the port area.

The port authority plans to develop the entire 96ha site (pictured) so as to attract manufacturing industry in the heart of this vast industrial, (petro)chemical, logistic and maritime complex

The authority said the size of the site and its location in the heart of Europe's second-largest port would make this opportunity unique.

"Such sites are invaluable because they make it possible to attract new industry and generate additional employment. In this particular case Antwerp Port Authority will focus on integrated development, as

the size of the site and its location present a rare opportunity.

"With this in mind each project proposed for the site will be considered in terms of the added value that it can create for the region."

The site, on the right bank of the Scheldt, has excellent links with the hinterland, thanks to direct connections to the road, rail and inland waterway networks. The port of Antwerp is also connected to the main European pipeline networks.

Antwerp Port Authority said it would issue invitations as soon as possible for potential investors to submit expressions of interest and proposals for projects.

It said Antwerp had a number of "unique advantages" for the development of profitable industrial and logistical activities.

In particular, the largest oil and chemical cluster in Europe, home to big names such as

Exxon Mobil, Bayer, Total, Ineos, Evonik, BASF and others.

"Innovation, state-of-the-art facilities, highly trained personnel and a huge amount of tank storage capacity go hand-in-hand with excellent hinterland connections by varied modes," said the port authority.

"The port's proximity to large centres of production and consumption, its high cargo-handling productivity and its excellent services make Antwerp the ideal location in the commercial and industrial heart of Europe.

"Add to this the extensive range of sustainable, modern facilities and the development of sustainable (energy) projects, and you have the perfect spot for long-term investments."

To promote the further development of the port, Antwerp Port Authority said it would continue to invest for the long term. This includes a number

of strategic projects such as the construction of the Deurganck dock lock (which when it is completed will be the largest in the world, securing accessibility on the left bank), further expansion of the port area on the left bank, development of new logistics parks (Waasland and Schijns Logistics Parks), and participation in hinterland hubs.

RS helps create innovative composite tank container

Russian Maritime Register of Shipping (RS), in conjunction with Uralcryomash OJSC, will participate in the innovative project on development and launching into

manufacture of a tank container with a composite barrel.

The news was announced by RS at the 19th International Exhibition on Transport and Logistics, TransRussia 2014, in Moscow at the end of April.

The project is being implemented under the state programme "Development of composite material production".

Based on the latest scientific and technical achievements, the plan is to develop and create a barrel made of polymer composite and resistant to aggressive agents and chemicals which are transported in containers. It will meet the international standards applicable to intermodal transportation.

The new tank containers are supposed to feature decreased barrel weight (20% less than similar steel barrels) and sustaining characteristics for at least 15 years, depending on the type of cargo.

Suttons wins new logistics contract from Bayer in China



Suttons Transport Group has been awarded an integrated logistics services contract from Bayer Material Science (China), to provide a range of bulk chemical logistics and supply chain services.

Suttons has invested heavily in recent years as it develops its business to "offer more value-added services and provide customers with a competitive advantage, through supply chain resilience and efficiency".

In China the company operates five regional offices, domestic road transport operations and a tank container cleaning, maintenance and repair facility in Shanghai.

Anthony Latham, Suttons Regional Director North Asia, said: "This contract is a significant win for Suttons. It's pleasing to know that our multi-service offering and dedicated account management approach is recognised by a customer of Bayer's stature and a deciding factor in us winning this contract."

Bertschi expands at Schwarzheide

Bertschi has begun a significant expansion of its logistics infrastructure on the BASF site in Schwarzheide (East Germany).

The handling capacity of the intermodal rail terminal will be doubled and its storage capacity tripled.

The increasing demand for storage of hazardous goods will be met with a new local depot for hazardous products.

The new facilities will start operation in 2015. Thereafter, the present east-west rail gateway function of the Schwarzheide terminal (Benelux-Duisburg-Poland-Moscow) will be complemented with new north-south intermodal connections (Hamburg-Schwarzheide-South-east Europe).

The success story of the East German intermodal rail terminal in

M&S Logistics

A member of the Multistar Group

- Worldwide ISO tank operator
- Safe, environmentally friendly, cost-effective transportation of bulk liquids
- Specialists in the Oil and Gas industry
- Continually investing and expanding
- Strong focus on Safety and Quality



Please contact us:
 Email: sales@mslogisticsltd.com
 Phone: +65 6809 2150
 Web: www.mslogisticsltd.com

cleaning your wörl

Gröninger Cleaning Systems
 is the leading international supplier of specialised cleaning systems for tank trucks, ISO containers, railcars and BCs. Gröninger has established a reputation for reliability during the 65 years since it was founded. Its global customer base is contributing to major improvements in cleaning standards through the use of Gröninger technology and know-how.



Gröninger Cleaning Systems
 Fokkerstraat 539-547
 3125 BD Schiedam
 The Netherlands
 telephone +31 (0)10 437 1022



Gröninger Asia Pte. Ltd.
 Block 809 French Road
 #07-150, Kitchener Complex
 Singapore
 telephone +65 6264 3644



GRÖNINGER
 Cleaning Systems
groninger.eu

Professional Manufacturer of Tank Containers

- **Standard ISO Tank 10.9KL-35KL**
- **Customized special Tank:**

Single or multi-compartment Tanks
 PTFE/PE/Chemline Lined Tanks
 Reefer Tanks
 Milk Tanks
 Electric heated Tanks

AHF Tanks
 Offshore chemical Tanks to
 DNV2.7-1/EN12079
 T50 Tanks
 Swap Body Tanks



**Your best
partner
in logistics!**

NT tank

[Http://www.nttank.com](http://www.nttank.com)

Head Office:

NO.3888,Jintong Highway,
 Xingren,Nantong,Jiangsu,China
 Tel: +86-513-8160 1166
 Fax: +86-513-8160 1168
 E-mail: info@nttank.com

Nantong Tank Container CO., LTD.
 南通四方罐式储运设备制造有限公司

Schwarzheide started in 1995 with a small gantry crane with a capacity of 25,000 handlings a year, built by Bertschi at the BASF plant.

That facility, mainly focusing on the economic connection of BASF Schwarzheide to the West European markets, soon reached the limits of its capacity.

After two expansions of the facility, including a modern container gantry crane in 2007, rail transport volumes started to grow significantly. The reason was that Bertschi, in co-operation with intermodal operator HUPAC, had started to provide new rail services from Western Europe via Schwarzheide into Poland and Russia. This signified the birth of the Schwarzheide Gateway terminal.

At the gateway, blocktrains from Benelux, Duisburg and Ludwigshafen are regrouped or units are redistributed to new trains, with direct connections to the major economic regions of Poland and to the Moscow region.

This new hub concept with new rail connections to the east has significant benefits for East German customers.

Three years later, as a result of the high quality and reliability of the new rail services, the maximum capacity of 60,000 handlings was reached and expansion plans initiated by Bertschi, in close collaboration with the site management of BASF Schwarzheide.

Due to increasing demand for the storage of hazardous goods, an application for such an infrastructure, integrated into the future terminal expansion, was submitted.

At the beginning of 2014, the site was prepared for building and construction work for the terminal expansion started in March.

This third expansion of the Schwarzheide terminal consists of a new intermodal area with six rail tracks under a new gantry



The BASF site at Schwarzheide

crane and a new container storage area for 1,700 TEU.

The new area will be spanned by a gantry crane with an impressive width of 90 metres and go into operation in January 2015.

The hazardous goods storage depot, with a capacity of 150 tank containers, is expected to be completed by mid 2015.

With this expansion, the current capacity of container handlings will be doubled to more than 120,000 lifts. The storage capacity will be tripled, providing the potential to upgrade the terminal to a central hub for storage and logistics concepts for deliveries to Eastern European markets.

With this investment, totalling €13m, Bertschi says it will "contribute to enhance the attractiveness of the location in Schwarzheide".

In conjunction with existing local logistic services, such as tank cleaning and a container repair workshop, Bertschi will be able to provide its customers with a "comprehensive service package".

TWS selects RAM leasing software to streamline business

RAM Intermodal has announced that TWS Tankcontainer-Leasing GmbH has implemented its Rental4000 tank leasing software following a review of its business requirements.

TWS, headquartered in Camin, has been prominent in the tank leasing sector for over 25 years. Its fleet has been growing at a rate of over 500 units a year in recent times and the company now has over 6,000 tanks for hire.

TWS provides state of the art equipment to transport chemical and food products. If required, it can provide tank containers fitted with electrical heating systems for temperature-controlled products and agitators for food products. The range is comprehensive and includes phosphorus, top only, top bottom, super insulated, bitumen and reefer tanks, along with swap bodies and spill troughs.

Following such impressive

THE EASIEST WAY TO **CONTROL** YOUR CONTAINER DEPOT



DEPOT SOFTWARE - THE FULL SERVICE DEPOT SOLUTION

DEPOT Software provides Depot Yards & Container Terminals with a powerful software solution to manage all activities and processes in a user friendly environment. Be in control at any given time!

Scan this advertisement with the Layar app on your smartphone to watch the 90 second animation and learn all about DEPOT Software.



growth, the management team at TWS conducted a review of its custom-built systems and flagged some key areas for improvement and modernisation.

There was a requirement to create documents automatically, improve financial history, enhance data integrity and centralise all processes into one core system.

"Our leasing administration and depot stock control were managed in two different IT systems," explained Andreas Herbertz, Financial Manager at TWS. "Although both worked well, we wanted to streamline our processes, reduce the requirement for manual data input and increase automation.

"RAM Intermodal was the obvious choice for us due to its reputation in the tank sector," continued Herbertz.



"It became clear that Rental4000 was the ideal specialist solution to help us with our growth strategy. We were impressed with the functionality and noted many ways that it would help us to reduce costs. The automatic generation of documents would cut administration time significantly and the fast analysis of financial data would enable us to work smarter. Additionally, we could use the time saved by eliminating the manual updates of depot stock to optimise equipment utilisation.

The control of maintenance and repair (M&R) is of major

importance to TWS as it prides itself on the excellent quality and safety of its fleet.

"With complex fittings to control temperature, provide insulation and to stop the swashing of liquids, tanks are more likely to spend lengthier spells of time in M&R as opposed to such equipment as dry boxes.

"Every day spent in the depot

results in a potential loss of revenue.

"A major advantage for us will be the visibility over the status of the fleet and the ability to improve both the testing and M&R processes," said Herbertz.

"The Repair4000 module analyses the turn time of units so that we can see which are being delayed and for what types of repairs. It also highlights which depots are

Eurotainer is committed to offer:

- The **highest level** of leasing services and solutions
- The **largest and most** comprehensive types of tank containers for liquids, gases and cryogenic products
- The **most experienced**, qualified and skilled organization
- The **largest network** of maintenance and repair facilities
- **Worldwide** technical and regulatory expertise
- A **global inventory** of available equipment for lease
- A commitment to **reliability, quality and innovation**.



Find your nearest
Eurotainer office at
www.eurotainer.com

2014 Tank Container Directory

The 2014 edition of the Tank Container Directory will be out soon (May 2014). Full of updated and fresh information with addresses, contact details and information it is the **must have annual for the tank container market.**



The four editorial sections are:

- Tank Container Operators
- Tank Container Lessors
- Tank Container Manufacturers
- Equipment & Service Providers

Each section has a geographic listing at the front followed by a comprehensive alphabetical listing.

turning round equipment most efficiently and which are performing badly. Regular reviews of this information will help us to make decisions that will have a very positive impact on profitability."

TWS will also utilise the functionality in the Rental4000 and Repair4000 modules to improve and simplify the complex process of test scheduling. Reports are available to flag all units due for tests and future tests can be predicted and scheduled to coincide with when units are in depot for M&R.

"This is a massive advantage for us," explained Herbertz. "Meeting test due dates is crucial for our business and the new system will take the headache out of the whole process, improving efficiency and dramatically reducing costs.

"It will also minimise the time tanks are out of service, increasing utilisation and boosting profits."

RAM Intermodal's other tank leasing customers include Taylor Minster Leasing, Peacock Container, Tankspan Leasing, Cargostore International, Modalis SAS, Multistar Leasing, Combipass and Unitas Services.

"It's great news to gain another tank leasing customer that is experiencing such positive growth," said Nicola Byers, RAM Intermodal's marketing manager.

"It confirms our position as the specialist IT provider to the tank container sector and with over a million man hours invested in the software, both tank lessors and operators are selecting RAM Intermodal as their preferred solution."

PTO offers one-stop solution

Pakistan Terminal Operators (Pvt) Ltd, a joint-venture between E2ESCM (Pvt) Ltd and Freight Connection Group, was

founded in September 2013 owing to the non-availability of a proper, professional cleaning/washing facility in Pakistan.

Also, due to the high cost of shipment, handling and cleaning of ISO tanks from Pakistan, PTO saw a huge potential to offer a professionally run, tailor-made facility using high-spec pressure cleaning plant machinery by Germany-based Weidner.

Khurram Niazi, CEO of Pakistan Terminal Operator said: "Establishing the first ITCO certified ISO tank and tanker cleaning facility in Port Qasim, Karachi, has helped to play a vital role in changing the dynamics of the liquid transportation industry in Pakistan.

"We are proud to be the first preferred partner in liquid tank cleaning of various ISO tank operators in Pakistan."



See us at the
ITCO Village
Transport Logistic
Shanghai

TANK MANAGEMENT SOFTWARE

Improve the Efficiency of Your Tank Fleet

Leasing Software

- Work Orders
- Billing
- Contract Management
- On-Hire & Off-Hire
- Enquiries & Fleet Management
- Investor Reporting
- EDI
- Maintenance & Repairs
- Fleet Cost Management
- Sales Orders
- Business Discovery

Operating Software

- Quotations
- Orders
- Documentation
- Planning Tool
- Purchase Invoices
- Sales Invoices
- Financial/Profit Control
- Maintenance & Repairs
- Customer & Vendor Tariffs
- EDI
- Agent Access
- Enquiries & Reports
- Business Discovery

info@ramintermodal.com
www.ramintermodal.com

RAM Intermodal
@RAMIntermodal

RAM
Intermodal

Diversity and depth

John Bannister is the Singapore-based head of tank containers at Seaco Global. Editor Leslie McCune asked him about the company's new ownership and the drivers of the global tank container leasing market

GE Seaco was created in 1998 by Sea Containers Ltd (since reformed as Seaco Ltd) and General Electric Capital Corporation.

Following the acquisition in December 2011 by HNA, the renamed Seaco was, in December 2013, positioned within the equipment leasing division of HNA under Bohai Leasing Co Ltd, a public company listed on the Shenzhen stock exchange.

How has Chinese ownership changed the strategic or operating priorities and how have customers been affected?

Seaco Global now has a stronger platform to develop and grow and has no fundamental investment constraints.

The strategic priorities remain



the same – profitability and sustainable long-term growth.

From the important customer perspective, we see an improved strategic position – the association with Chinese owners, together with our long and successful tank container

leasing experience, continues to attract Asian customers.

The focus will remain on dry boxes, dry freight specials, reefers and tank containers. We believe this diversity gives us a competitive advantage against others who may instead focus on just one

or two product categories.

With a fleet of around one million teu, Seaco Global offers one of the widest ranges of container equipment available from any leasing provider. The range includes standard dry freight containers, reefers, tanks, swapbodies, flatracks, open tops and the two pallet-wide SeaCell container.

How is tank container leasing different to the leasing of other equipment?

While the fundamentals are the same in terms of finance and investment, tank container leasing is unique. The tank container leasing market is a more diverse market with a large customer base spread over many sectors. Unlike in the other sectors of our leasing business, no-one knows all the tank container customers.

This means there is far more scope, and reward, for the roles of prospecting and market exploration. Importantly, there is far more scope for creating tailored solutions for specific situations.

To what extent does Seaco Global spread its tank container leasing business between the chemical, food, beverage and gas markets?

The largest proportion of our tank fleet is on lease to the major tank container operators. They, in turn, cover most of the market sectors.

Our other customers include the petrochemical producers, oil and gas players, and those operating in the mining sector.

How is your tank container fleet split between the standard T11 and more specialist tank instruction types?

Approximately 75% of our fleet is T11, with a variety of capacities up to 26,000 litres and options



including uninsulated, super-insulated and electrically heated tank containers. T14, T20, T22 and T50 tank containers are also available, together with lined tanks for high-end corrosion resistance.

What do customers look for most when leasing tank containers?

Most global tank container operators want a global presence while regional petrochemical customers want a local presence offering technical support and expertise.

Most customers look for equipment availability and an established company with a history of successful tank container leasing – this creates trust and inspires confidence.

Are tank container leasing customers becoming more demanding?

Inevitably, yes, which plays to our strengths. But this phenomenon is partly due to their own customers becoming more demanding.

Petrochemical producers - faced with less predictable and more volatile markets – are looking for more flexibility in their operations.

As a consequence, there are,

John Bannister C.V.



John has been involved in shipping and the container leasing industry for 27 years. He joined Sea Containers reefer department in 1987, spending time with EAC Benline as reefer fleet manager and with Carrier Transcold.

He moved to Hong Kong as Asia Pacific Sales Manager for Carrier and has been based in Asia for 18 years.

In 1999, he joined GEsaco to head up its Asia Pacific reefer leasing business and is now Seaco Global's Director of Tank Containers.

CUSTOM DESIGN

FLEXIBLE LEASES

DIRECT SALES

CERTIFICATION SUPPORT ONLINE

CRONOS TANKS

GLOBAL COVERAGE FROM YOUR LOCAL CRONOS OFFICE

TYPICAL SPECIFICATIONS

ISO TANK CONTAINER // SINGLE COMPARTMENT INSULATED AND STEAM-HEATED STAINLESS STEEL TANK CONTAINERS

CAPACITY	TARE WEIGHT	MAX GROSS WEIGHT
26,000 ltr	3,790 kg	36,000 kg
25,000 ltr	3,740 kg	36,000 kg
24,000 ltr	3,670 kg	36,000 kg

GENERAL SPECIFICATIONS

WORKING PRESSURE: 4.0 Bar
DESIGN TEMP: - 40°C to 130°C

APPROVALS

UIC, CSC, TIR, IM101, UK-DOT, RID/ADR, AAR600, FRA, TC, UN PORTABLE TANK, IMDG, US-DOT, L4BN

STANDARD FITTINGS

MANLID: 500 mm (20") diameter, 8 point fixing

AIR LINE: 1.5" with stainless steel ball valve and 1.5" BSP cap

RELIEF VALVE: 2.5" SRV set at 4.4 Bar – provision to fit a second

TOP OUTLET: Provisions for 3" butterfly valve and syphon tube

BOTTOM DISCHARGE: 3 point stainless steel closure

STEAM-HEATING: 12 m² effective surface area external steam tubes



WWW.CRONOS.COM

ANTWERP DUBAI DURBAN GOTHENBURG GRAND CAYMAN HAMBURG HONG KONG HOUSTON LISBON
LONDON NEW YORK RIO DE JANEIRO SAN FRANCISCO SEOUL SHANGHAI SINGAPORE SYDNEY TAIPEI TOKYO

DRYS REEFERS TANKS EQUIPMENT SERVICES

DRY FREIGHT SPECIALS: Bulkers / Opentops / Flatracks / Half Heights / Rolltrailers / Slimwall CPC's / Car Racks

for example, more variations to the conventional extendable five year lease model.

Middle East demand for tank containers is growing strongly. How are leasing companies responding to this and is the Middle East unique in any way?

Everyone is aware there is an opportunity in the Middle East and the focus is increasing as new downstream specialty plants start-up. Seaco Global has equipment – mostly standard tank containers – and people on the ground in the region to support the development of the tank container leasing concept.

The Middle East is clearly a new region with limited – but rapidly developing – experience in tank containers. It does have some unique import and export restrictions, which means local knowledge is critical. The constraints often create a lumpy or uneven market.

Customers include traders, moving waste streams for further refining, but we have not domesticated any tank containers as most are loaded for international trade.

What are the other major opportunities for the tank container leasing sector ... and major challenges?

We believe the structural growth of chemical manufacturing – estimated by industry analysts to be 4-5% a year in the next few years – will support demand for tank containers. In addition, chemical manufacturing is becoming more diverse, with smaller plants in more countries.

We believe that this, combined with a focus on operational efficiency and just-in-time delivery, will drive demand.

The widely-accepted generic benefits of tank containers, including safety, convenience,



self-contained storage and reduced handling will become ever more attractive.

The challenges include those associated with an oversupplied market and the threat of new entrants. These may be in the form of new leasing companies with tank containers but little else, or well-established players in the logistics sector which may see better returns in tank container leasing compared with their usual investments in dry freight boxes, reefers or dry freight specials.

Tank container leasing may be easy to get into, but it is difficult to create long-term sustainable profitability. Having experience is the key to securing returns that make the business viable in the long-term.

What are the top-three critical success factors for a tank container leasing company?

Global capability with a local presence; well-trained staff; adaptability to exploit market opportunity and changing

customer preferences.

Putting price to one side, how does Seaco Global decide which manufacturers to source its tank containers from?

When we buy a tank container, it's a 20-year investment. Quality is key; we look for designs that meet current and future market needs, reliability and flexibility.

To ensure quality, we put our own inspectors into the tank manufacturers. They check the quality of raw materials and the final build-quality.

Tank manufacturing developments have focused on lighter tank containers, stronger frames and the possible use of higher cost duplex steel.

Where next for Seaco Global?

We will be developing the fleet, with more specials, and looking at the undoubted opportunities in new markets such as the gas market. However, the biggest value add benefit comes with the training and development of our people.

In a class of their own

Statistics show a steady decline in apprenticeships offered in the UK, but Mike Wackett finds engineering specialist Fort Vale remains dedicated to producing 'home-grown talent'

Fort Vale is a world leader in the design and precision manufacture of valves and equipment for builders of road tankers and ISO tank containers transporting liquid, gas and hazardous cargo.

The company has over 80% of this global market and is making its presence felt in the nuclear sector.

Based in Simonstone, Lancashire, Fort Vale was founded in 1967 and manufactured parts for the fuel oil delivery industry. By 2007, its 40th anniversary, the company employed 240 people in the UK and had offices all over the world.

Five years later the company had grown to its current level of 350 staff, but having diversified, there are now other companies within Fort Vale Group, which has over 600 staff.

The business stems from the success of a former apprentice. Company founder and chairman, Ted Fort, started out as an apprentice with Rolls-Royce. He has remained passionate



Andrew Bryce: "We're with with Fort Vale's apprentices every step of the way"

about encouraging young people to develop and forge careers for themselves.

The benefits to the company have been wide-reaching. Qualified engineers emerging from Fort Vale's apprentice programme have played an important role in helping the business to grow.

There are currently 25 former apprentices in staff roles within the company and 13 others have progressed into first-line supervisory roles within the production and quality assurance areas. There are currently two former apprentices on the board of directors.

Engineering apprenticeships at Fort Vale exceed the basic requirements of the Advanced Modern Apprenticeship content, says the company. As a minimum, all apprentices must successfully complete their further education to the Higher National Certificate

level. Where there is a company need for further progression, apprentices advance to Higher National Diploma and degree level.

Recent UK government statistics reveal that there has been a steady decline in apprenticeships being offered in industry and a worrying fall in the number of school leavers wanting to take up engineering apprenticeships.

The UK government has received repeated warnings from industry of an engineering skills shortage, caused by the decline in youth apprenticeships at a time when they could be expected to increase due to the tripling of university tuition fees and high graduate unemployment.

This expected dearth of new talent is supported by a report from EngineeringUK and published at the end of 2013. In its annual "state of the engineering nation" assessment

it highlighted a worrying 8.1% year-on-year fall in the number of under-19s taking advanced level engineering in 2013, following a 12.2% plunge in 2012.

EngineeringUK's chief executive, Paul Jackson, said the findings were a warning to engineering firms that they would face difficulties recruiting staff with the right skills and experience if the "pipeline of future talent" was not there.

He said: "As the UK economy's engine for growth, it is crucial that engineering gains sustained support for education, training and careers inspiration."

It is at schools where the process begins – before students choose GCSE subjects. Fort Vale looks for applicants with a minimum of four GCSE Grade Cs or above, and grade Bs in mathematics and science.

Andrew Bryce, Fort Vale's Director of Innovations, believes schools tend to "generalise" in their careers studies. The promotion of so-called STEM subjects (Science, Technology, Engineering and Maths), combined with providing young people with essential life skills, is considered a massive area of development for schools within the curriculum. Fort Vale considers it an "obligation", both for the company to assist and encourage this wherever possible.

Apprentice Training Manager, Alan Emerton assists Mr Bryce, who also started on the shop floor, with the process.

Fort Vale says it continually strives to forge a good relationship with local schools and both executives visit them to encourage heads and careers advisors to facilitate student visits to Fort Vale, so they can get the buzz of a busy hi-tech engineering shop floor in action and learn more about engineering apprenticeships.

Mr Bryce explains that Fort Vale normally receives a substantial quantity of applicants from

16-8 year olds each year, which is whittled down for suitability and eventually, by interview and further assessment, until the yearly intake requirements are met.

Apprentices immediately become part of the Fort Vale family, explains Mr Bryce. "We are with them every step of the way.

"It is a three-way street: us, the apprentice and parents," he says.

The well-being of the apprentice is extremely important to Fort Vale and that support continues throughout the four-year apprenticeship, and beyond.

The apprentices spend their first year with training and skills specialist Training 2000, followed by a further three years at Fort Vale combined with day release at college.

Executives visit schools to encourage heads and careers advisors to facilitate student visits to Fort Vale, so they can get the buzz of a busy hi-tech engineering shop floor in action and learn more about engineering apprenticeships

An apprentice is assigned to a sector of the production, where a mentor helps him or her develop both as an engineer and as a person. This development is closely monitored as the apprentice moves through the various stages of competency.

Of the seven new apprentices

that joined Fort Vale in September 2013, five have entered mechanical engineering schemes, one is learning his trade in the tool room and one in fabrication and welding.

There is a 100% retention rate after the successful completion of the apprenticeship programme, which, says the firm, illustrates its success.

Fort Vale exports 90% of its products with sales in over 50 countries and received its fourth Queen's Award for Enterprise in International Trade in 2013.

Quality is underpinned by Fort Vale's investment in its own casting foundry, tool room, as well as research and development and testing facilities. This avoids a dependence on third parties for the supply of tooling and products, ensuring good quality control and supply continuity.

The multi-million pound investment in state-of-the-art equipment at Fort Vale is, in turn, underpinned by its investment in its people, says Mr Emerton.

"Fort Vale has always placed great value on first-class training as we look forward to a bright future for the company and for the young people in the area."

As part of Fort Vale's commitment to apprentice training and development, 20,000sq feet of new research and development premises were opened in December 2013.

This houses the Apprentice Training Centre, R & D Centre, Nuclear Division and Tool Room.

HRH the Duke of Kent toured the company's headquarters and officially opened the facility.

At the time, Fort Vale Managing Director Ian Wilson said: "The opening of the research and development centre underlines our commitment to investment in training and innovation which, along with the people here, are the cornerstones of our success."

Suttons graduates with

Mike Wackett discovers how Suttons travelled from horse-drawn wagons to a specialist logistics operation, and its plans to take the firm to the next level

A 1920s picture of Alf Sutton, the founder, with one of his fleet of horse-drawn wagons hangs at the entrance of the Suttons Group boardroom in Widnes, Cheshire.

I am here to find out about Suttons' new graduation scheme and why it is such a success.

HR Director, Michael Cundy explains that John Sutton - the current family member to head up the firm - believes that strong foundations are a very important credential in a world that sees many companies come and go. But to survive and thrive a business must look to the future.

Suttons' new graduate scheme has aspirations for a pipeline of new talent that will take the company to the next level.

Even on a short drive it is unlikely that you would fail to spot a Suttons tank container or road tanker on the arterial roads and motorways of the UK.

Suttons' 480 drivers represent about 50% of its workforce and must have the highest possible standards, which includes incorporating the Smith's System of defensive driving" skills into their daily regime.

Mr Cundy says very few drivers leave Suttons to move to another transport company and there is a long waiting list of applicants wanting to join the firm.

This is no doubt not only due to attractive terms and conditions



but also, perhaps, due to the fact that Suttons' drivers are made to feel part of the family. It has an "open door" management philosophy and there are many opportunities to contribute ideas and comments on a regular basis, right up to John Sutton himself.

Michael Cundy joined Suttons in 2005 after working in human resources (HR) management and executive positions, including a spell at a subsidiary of the National Coal Board where he had HR responsibility for several thousand workers.

In 2005, Suttons began a period of restructuring and by the advent of the 2009 recession - which claimed many jobs in the area - the company had already right-sized and was therefore better equipped to ride out the downturn in a leaner and fitter shape than

many of its competitors.

Since then Suttons has expanded rapidly, both in the UK and internationally, in its core business as a logistics provider, specialising in the safe bulk movement of chemicals, gases, fuels and food.

Suttons is now one of the world's leading tank container operators, providing intermodal bulk liquid services for most of the world's largest chemical and petrochemical manufacturers, including highly sensitive hazardous chemicals.

Apart from Widnes, Suttons has offices in Iselin, New Jersey in the US; Al Khobar in Saudi Arabia, Singapore, Malaysia and China as well as accredited agents in many other parts of the world.

The international flavour of Suttons in the 21st century should be especially attractive to graduates seeking a career in logistics, but according to Cundy, this was not always sold properly in the past.

Suttons has always had a graduate scheme, but in name only, in that there was poor retention of its graduate talent. Its prime objective was, and is, to source new executive talent for the company.

Indeed it puzzled CEO John Sutton why, with so much to offer, the *crème de la crème* of graduates were not applying for jobs at his company and why those that did quickly moved on to other jobs.

With over 400,000 graduates leaving university in search of a career each year, the Suttons' communication network and message of opportunity was clearly not reaching the right people.

Moreover, John Sutton knew that it was vital to have a continuous pool of new talent coming through

a first



HR Director Michael Cundy

if the company was to continue to grow at a sustained pace.

He asked Michael Cundy and other executives to come up with a plan that would target the best graduates on the market and then make sure that they were retained to forge a career at the company.

Mr Cundy says it was about a year ago that the new graduate scheme was implemented and there are already very positive signs that Suttons is now gaining access to the most suitable graduates, who, when employed, are being continuously motivated to exceed their own expectations.

The selection process of graduate candidates is thorough and involves an initial outsourcing relationship with specialist outfit Discovery Graduates, which operates a sophisticated placement system quite different to conventional employment agencies. The agency works

closely with the graduate, taking on the role of a careers office.

"I was a bit sceptical about the use of an outside agency originally," admits Mr Cundy, but he now regards his contacts there as an "extension of Suttons' HR operation".

The agency makes a point of understanding its graduates from the moment they sign up to its database, either for a specific position or as part of a general interest registration process.

The biggest drawback for recent graduates is that they may not have any relevant work experience, or indeed a comprehensive CV. Both make the difference to getting an interview – the first step on the ladder.

Discovery Graduates helps with these major concerns and focuses on the importance of non-academic attributes that employers look for in graduates but which are often lacking – these include the ability to communicate well, the ability to sustain the right energy level, an enthusiastic outlook and a strong desire to succeed.

With its close association to the graduates on its database, Discovery Graduates will sift through as many as 700 candidates to generate a shortlist of around 50 candidates for Suttons. These will then be further assessed for suitability with the Suttons HR department, and whittled down to a final list of 10-12 candidates.

These graduates will be invited to a two-day assessment seminar – normally held in October – which starts with a site visit and an informal dinner with Suttons' executives, which the CEO attends.

Day two will include a wide range of team events, written and verbal tests, carried out, according to Mr Cundy, in an "informal atmosphere, but with sufficient pressure".

"We want to find the best well-rounded talent".



Scheme graduate
Melanie Heatherington

A final interview will take place before the applicants depart. Then a panel of Suttons executives, with two representatives from Discovery Graduates, assess the respective merits of the graduates.

In a normal year up to four graduates will be offered positions to commence from November – importantly, the unsuccessful applicants are given feedback.

One of the successful intake of 2013, Melanie Hetherington, had graduated from John Moores University, Liverpool.

Her experience since joining Suttons in October epitomises the company's scheme of apprentice-like learning of many tasks. She enthuses about the approachability of the Suttons management and the opportunities that were on offer.

Now, after being involved in several projects, she is about to be seconded to a role within the HR department.

Melanie will know better than most what makes Suttons attractive and which graduate would be right for the company. She will no doubt make good use of her skills at the its next graduate assessment.

Neutral handling the

James Graham checks out the results of a €6.5m revamp at the Peter Hempt tank container storage facility in Germany

The Peter Hempt tank container depot in Worms is ideally located to service the bulk liquid requirements of Germany's Rhineland industrial base, especially its chemical and petroleum businesses.

Established in 1991, Peter Hempt is an international transport company that specialises in the transportation, cleaning and repair of tank containers.

According to MD Enrico Finelli, the facility can act both as a storage hub or back-up facility in supply chain solutions offered by third-party logistics service providers. He says: "Loaded tank containers can be stored for an unlimited time, therefore all permits and allowances from the authorities are granted."

The depot, in the northern industrial zone of Worms, is the only such container site operated by Peter Hempt, a subsidiary of Hamburg-based transport company Kube & Kubenz Internationale Speditionen. The 84-year-old logistics company's core competences are tanker and silo transports, moving hazardous goods, road tankers and tank containers and combined transport.

Peter Hempt is independently managed and operates neutrally in the market, which allows it to handle tank container traffic for Kube & Kubenz competitors.

In 2012, the facility underwent a strategic €6.5 million upgrade with the development of a new chassis yard across the road and significant basins for water retention



in case of a spillage or fire. The investment saw a doubling of capacity to some 2,000 containers.

The most common traffic handled by the depot is chemical and oil tankers. There are very few food standard tankers, notes Finelli. Given the nature of the use of most of the tank containers, and its location near Germany's industrial heart, it is no surprise that Peter Hempt has developed specific skills in dangerous and hazardous goods handling and storage.

Finelli says: "The best example is tank container cleaning, which requires a special facility and services. In addition, due to the cost-intensive requirements for the storage of dangerous goods, a tank container depot cannot be compared with a normal box container depot."

Turnaround times at the depot depend on the extent of the work ordered and the volume of tank containers at the location. Usually, cleaning a tank container can take from 30 minutes to several days, depending on the product type and the date of the last cleaning, notes Finelli.

A key element in the operation of the Worms depot, its cleaning system, which the company claims is among the largest and most modern in Europe, allows up to eight containers to be dealt with simultaneously. Two cleaning lanes for tankers enable parallel cleaning. For optimum results, containers can be steam-cleaned or electrically heated with hot water.

To shorten waiting times, staff identify environmental hazards and issues before they arise and

key to success

eliminate or counter them.

While the main traffic of Peter Hempt is the handling and storage of chemical and oil tankers, the company pays as much attention to the smaller food and beverage traffic it handles, says Finelli. These come under the umbrella of special services for clients.

One example might be the cleaning of a container according to the rules of the Jewish faith, to make the equipment Kosher. The cleansing of food and beverage equipment to maintain purity of ingredients is as vital to a successful shipment as the prevention of contamination of chemical or oil products that can lead to fatal consequences.

Given the complexity of its operations, Peter Hempt has developed its own telematics and fleet management systems.

Finelli says: "Hempt offers a complete solution for the handling of tank containers. Therefore, [our] software is developed in-house to integrate trucking, repair and tank cleaning in one workflow."

The company works mainly for logistics service providers and not directly for their chemical industry clients. For this reason, Peter Hempt maintains only a "very small fleet" of tank containers that can be used as standby provision to support logistics service providers in case of an unexpected or sudden demand for capacity.

The company has a mixed fleet of 60 Euro 5 and Euro 6 tractors and more than 400 container chassis in a range of lengths. They have 20/30/40ft standard chassis, 20/30ft tilting chassis and 20/30ft low-loader chassis. These are available for to customers to rent, either on



long-term or short-term basis.

The tractor fleet consists of the most modern Mercedes and Scania equipment.

"We renew our truck fleet every four years to make sure they have the newest environmental standards and equipment. The whole truck fleet is also equipped with a full safety package," says Finelli.

Peter Hempt works with both technical standard service corporation TÜV and German vehicle inspection company Dekra to monitor its work.

Situated in the Rhine valley, the facility is convenient for some of the most important industrial areas in the EU, says Finelli.

"Tank containers come from all over the world and leave for worldwide destinations."

This international element

is reflected in the company's current recruitment campaign for tractor drivers, who must undertake Europe-wide delivery of "dangerous goods in tank containers".

All Peter Hempt staff receive in-house health and safety training when they start to work at the company. There is also continuing training and all personnel are regularly briefed about safety measures and facilities, notes Finelli.

Looking ahead, Finelli is quietly confident that the marketplace for tank container operators is strong and contains promise. Logistics providers and freight forwarders are increasingly turning to tank containers, away from road tankers, which in turn is creating greater numbers of tank movements and operations via the Worms depot.

Finelli says: "The global exchange of goods, as well as co-operation between different regions, countries and international companies is growing steadily. In relation to this, we expect our business to grow further, which is why we want to continue to invest in the expansion of our facilities."

This expansion is desirable as success has brought its own problems: as the depot has grown in activity, the fact that it has only one cleaning facility is now proving to be a bottleneck that can sometimes cause delays in periods of high demand.

This is leading the company to consider creating a second facility, which could allow the company to simultaneously clean tank containers and road tankers.

The multimillion euro investment in the Worms depot was a mark of the confidence that Peter Hempt has in the present and future of its business. Its work as a hub or storage depot for tank containers helps oil the wheels of the global supply chain.

CISTERPOR S.A.

CHEMICALS PRODUCTS
FOODSTUFFS PRODUCTS

Certificada ISO 9001 por



ACREDITAÇÃO IPQ



99/OCF.04
Certificação
Gestão da
Qualidade

ACREDITAÇÃO IPQ

A.D.R. APROVAL FLEET TANK CONTAINER OPERATOR INTERNATIONAL AND NATIONAL TRANSPORTS

**GPS, GSM, and
UNLOADING MEANS,
FLEET EQUIPPED**



Cisternas Reunidas Portuguesas - CISTERPOR S.A.

Quinta da Horta • Cruzamento do Catujal • 2685 SACA VÉM • PORTUGAL

Tel.: + 351 219 406 500 • Fax: +351 219 400 588

P. O. Box: 204 • 2686-997 SACA VÉM

Making inroads

Tank containers are providing an ideal solution for LNG logistics, especially smaller-scale applications to access new markets, reports Ben Thomas

Environmental pressure to move away from carbon-intensive fuels like coal and oil, coupled with the increasing availability of natural gas supplies, is driving interest in liquefied natural gas (LNG).

This has led to increasing demand for cryogenic transport and storage solutions. The cost, complexity and lead times to organise large-scale LNG supply chains can cause delays in accessing new markets. But the use of LNG tank containers can dramatically ease this process and this is stimulating demand for equipment, with owners/lessors increasing their fleets and manufacturers launching new designs.

The ability to use existing intermodal container supply chains and increasingly economical, small-scale re-gasification equipment is helping LNG penetrate new markets. A recent example is Hawaii, where, in April, Hawaii Gas became the first company to bring a shipment of LNG fuel to the US island state. Hawaii Gas received approval on 6 March from the Hawaii Public Utilities Commission to use limited quantities of LNG as a backup fuel for its synthetic natural gas (SNG) operations, increasing the reliability of its gas supply.

The company is exploring large-scale LNG delivery options, but has initially implemented a small-scale containerised LNG delivery programme. The first shipment arrived on 2 April in a 40ft ISO



Liquiline has successfully implemented intermodal LNG logistics operations along Norway's coastline using LiquiTainer units

container from the US to Hawaii Gas's Pier 38 gas operations facility. The LNG is re-gasified using a mobile vaporisation unit and injected into the SNG distribution pipeline. In its gaseous state, LNG is chemically similar to SNG.

"We're committed to lowering energy costs for Hawaii and see natural gas playing a critical role," says Alicia Moy, Hawaii Gas president and CEO. But she acknowledges that the use of LNG tank containers and mobile vaporisation equipment is a stop-gap solution.

"The sooner LNG can be brought to Hawaii in large quantities, the sooner our residents can benefit from this cleaner, cheaper, reliable and abundant fuel," she says. To that end, the company is investigating the development of a large-scale bulk LNG

programme in partnership with Hawaiian Electric Company.

LNG is also making headway as an alternative fuel for vessels, driven by cost-competitive gas prices and new emission reduction requirements. For instance, the western approaches to the Channel, the Channel itself and the North and Baltic Seas will become subject to special emissions control area (SECA) regulations on 1 January 2015.

Port bunkering services have to gear up to supply LNG fuel and an opportunity exists for this market to be served by LNG tank containers.

Finland-based Wärtsilä has aroused considerable interest in its LNGPac fuel gas handling system for newbuild vessels or gas conversions. But the company acknowledges it might not be best suited to all ships and it has

designed a fuel gas handling system – dubbed LNGPac ISO – that uses removable LNG fuel tank containers.

“For small and medium sized vessels, which do not require a large LNG capacity, such a solution offers a viable alternative to conventional stationary LNG tanks,” the company argues. “If LNG bunkering facilities are not available or bunkering is not possible, using LNG as fuel can still be realised by using LNG fuel tank containers. These can be transported by road to the nearest LNG terminal for refilling, and then loaded onboard the ship with no bunkering procedures required at the port.”

As well as an the LNG fuel tank container, the LNGPac ISO system comprises a docking station and an evaporator skid installed permanently on the ship on an open, naturally ventilated deck. While tank containers designed to transport cryogenic liquids like LNG can serve as fuel storage tanks onboard LNG-fuelled ships, a normal LNG tank container cannot be used, says Wärtsilä, as it does not fulfil all the requirements for marine LNG fuel tanks.

Modifications relating to remote monitoring and safety systems, IMO type C tank requirements, and leakage/spill protection are among the issues that need to be specifically considered.

The LNGPac ISO tank containers fulfil all marine LNG tank requirements and are fitted in standard 20ft, 40ft and 45ft ISO frames. The fuel tank is an IMO type C pressure vessel enclosed within an outer tank. Both the inner and the outer tanks are made of stainless steel, which means that the outer enclosure will act as secondary containment.

The tank container is fitted with valves and instruments required for operational and safety purposes and is also fitted with a pressure build-up evaporator (PBE) for

building up and maintaining an operational pressure of approximately 5 bar in the tank.

The pressurised tank is used instead of rotating equipment, such as pumps and/or compressors to feed the gas to the engines. Having a PBE on the container makes the LNG fuel tank containers redundant, so if a container is out of service another can be easily taken in.

The connection points are located at the end of the LNG fuel tank container for easy and smooth hook-up of the LNG fuel tank container to the onboard fuel gas handling system.

These connections consist of the LNG discharge, the vent mast connection, heating media connections and a connection to the water spraying system built onto the LNG fuel tank container.

For fuel tanks located above deck, a water spray system is required to cool the LNG tank in case of fire.

Another new LNG tank container application – a mobile LNG fuelling station – has been developed by Czech Republic-based Chart Ferox, a subsidiary of Nasdaq-listed Chart Industries. The system consists of a 20ft ISO container with a 20cu metre gross volume tank, a centrifugal pump, saturation vaporiser coil and a control box, all

carried on a flatbed truck/trailer.

The design maintains vapour return from the vehicle fuel tanks and prevents venting of methane to the atmosphere.

Chart says a major advantage is that there are two different modes of operation. It can work as an LNG fuelling station, with a typical flow of 150 litres per minute, or as a standard LNG delivery container with a maximum flow rate of 400 litres per minute, providing the owner with greater flexibility.

The station is equipped with a calibrated flow meter and printer for billing purposes. The hydraulic drive of the pumps makes the station independent of the electricity network by having a hydraulic oil pump on the truck. The mobile station parameters are suitable for quick-install solutions for small fleets of LNG vehicles, typically buses or trucks, or support of pilot projects.

Among the logistics operators seeking to increase their exposure to the growth in intermodal LNG operations is Hoyer. In December 2013, the Hamburg-based firm invested in a fleet of 40ft LNG tank containers.

Both the inner and outer tanks are made of stainless steel, as are parts of the frame and the pipe connections. The tanks can hold



Rektor's new LNG tank container offers holding time of 120 days

at least 46cu metres and can be outfitted with a special pumping system to speed up unloading and a precise measuring section.

A year ago, Hoyer significantly expanded its global gas logistics business and by the middle of 2013 had increased its fleet to about 1,000 units of 20ft, 30ft and 40ft tank containers.

A spokesman from the company's gas department says: "Depending on which gas we have, Europe is mainly a pipeline and trailer market. In some special areas the combined transport makes more sense, which means containers are involved and Hoyer invests in such niches. Hoyer offers tailor made equipment, especially for the new LNG market."

Leasing firms, too, are increasing their LNG tank container fleets. Taylor Minster Leasing (TML) has focused on specialised equipment and is thought to be the largest lessor of cryogenic tanks with a fleet of over 500 units. In 2013, TML introduced the 40ft T75 for LNG and in the coming months it will add the 22,000-litre CO₂ T75, which will operate alongside the more usual 19,500-20,000-litre variety.

Lessors, owners and operators of LNG tank containers are faced with a growing choice of equipment as manufacturers scramble to launch new and improved designs. UK-based M1 Engineering is one of the latest companies to launch an LNG tank container – a variant of its cryogenic tank for transporting liquid nitrogen, but optimised for LNG and ethylene. The vacuum-insulated ISO container is of full stainless steel construction, including the tank, jacket, frame, pipes and valves. The unit can carry 46,000 litres and is available for operation in 6, 10 or 17 bar pressure, with a tare weight of 10.7 tonnes for the 10-bar unit. It can be supplied with a hydraulic or electric pump system and a flow meter can also be specified.



TML has introduced T75 40ft LNG tank containers to its lease fleet

Croatia-based manufacturer Rektor has developed a special insulation system that increased the holding time of its LNG unit by 100% to 120 days.

Sebastian Perani, from the company's sales department, says complying with all European, ASME and ISO standards and approved by Bureau Veritas, the Rektor unit comes with a five-year warranty on the vacuum. It is also optimised for use as a marine fuel solution.

Russia-based OJSC Uralcryomash has revealed plans to launch an LNG tank container, model KTSM-40/08, in the second half of 2014. At the same time it will introduce a rail tank car, model 15-712. The KTSM-40/08 will have a shipping volume of 40cu metres and an LNG payload weight of 14.3 tonnes. The 15-712 will have a shipping volume of 75.74cu metres and an LNG payload weight of 26 tonnes. The company is planning scheduled production of 20-30 LNG tank containers or rail tank cars per month for the period of 2014-2017.

The KTSM-40/08 has been designed to allow an increase in the time of transport service without drainage to 79 days,

compared with a 15-day maximum for similar equipment, claims Uralcryomash. Rail tank car model 15-712 has an enlarged tank for LNG storage and transport within general-purpose rolling stock.

Norway-based Liquiline AS offers its LiquiTainer in 20ft and 40ft variants, designed to carry LNG with an 80-day hold time. Liquiline has successfully implemented intermodal LNG logistics operations along Norway's coastline using LiquiTainer units.

Chart's TVAC and 20ft intermodal containers come in a variety of working pressures from 145 to 348 psig for EN coded vessels and 100 to 230 psig for ASME coded vessels. The TVAC comes with a pressure building vaporiser for pressure transfer, while the company's PVAC 20ft is designed for pump use with a self-contained pump transfer system.

Chart's 40ft container comes in the pressure of 145 psig for EN coded vessels and 100 for ASME coded vessels. It is designed and optimised for LNG service, but is popular for ethylene services thanks to its high payload of 19-22.5 tonnes.

From vision to reality

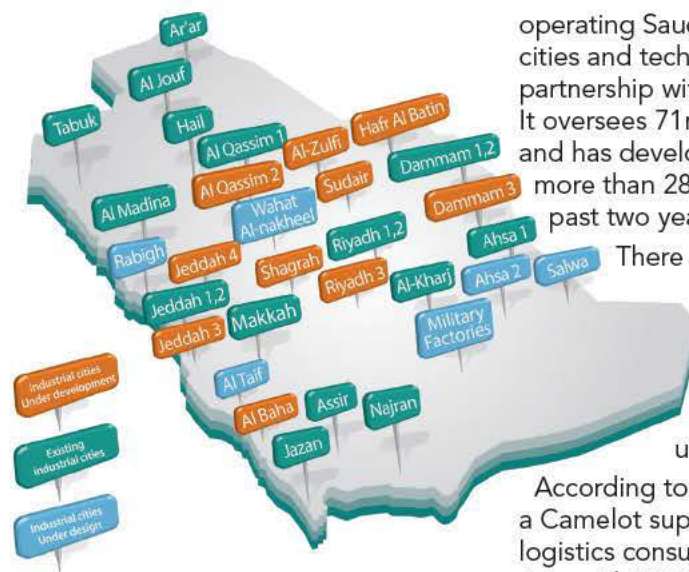
Rail has been the missing link in a truly intermodal supply chain in the Gulf region – that is changing, reports Leslie McCune

The influx of tank container companies into Gulf Cooperation Council member states (Saudi Arabia, Qatar, the UAE, Kuwait, Oman and Bahrain) reflects the burgeoning production of specialty chemicals, the increased need for imported raw materials and increased trading activity in container-sized small lots of petrochemicals and refinery products in the Middle East.

But rail remained the missing link to the truly intermodal flow of tank containers within the region, and to and from the ports. That is changing – according to Zawya, there are \$150 billion of rail projects in the Gulf region either under construction or planned for completion before 2030. This will create an inter-connected GCC rail network with huge trade benefits.

Saudi Arabia, for example, is spending \$45 billion on rail developments. In time, the rail network will become the central nervous system of all trade within, and across, the kingdom's borders.

The benefits will include a reduced demand for long-distance trucking across the Arabian Peninsula and a greater ability to balance the demand and supply for containers. There is a structural oversupply of containers on the west coast, where they are discharged at Jeddah, and an acute shortage of containers on the east coast, where they are required by the many large petrochemical producers in Al Jubail region. Costs will also be reduced – according to one



operating Saudi Arabia's industrial cities and technology zones in partnership with the private sector. It oversees 71m sq metres of land and has developed more than 28m sq metres in the past two years.

There are now 15 industrial cities, including those in Dammam and Jeddah – with a further 14 under development.

of the region's larger producers, rates of up to \$200 per container are currently being charged simply to move containers between Dammam and Jubail.

Necessity has bred invention – another major petrochemical producer with several joint-ventures in the GCC is using non-operating refrigerated containers to export polymers to Belgium, South Africa and Italy. Payloads are somewhat reduced due to the intrusion of the refrigeration unit into the internal space, but rates are lower as the reefers would otherwise have repositioned empty to their original loading location.

The planning of the Saudi Arabian logistics infrastructure is being developed by MODON, the Saudi Industrial Property Authority. The authority is responsible for establishing, developing and

According to Mark Appleyard, a Camelot supply chain and logistics consultant working full-time with MODON, the Saudi authorities are acutely aware that more logistics service providers (LSPs) are needed to serve the industrial cities and that the cities need to be supported by an efficient logistics infrastructure with world-class standards. MODON is therefore developing multimodal logistics terminals, truck terminals and logistics hubs and zones, and build-to-let warehouses. The authority is in the process of introducing LSPs to tenants, developing incentives and benefits aimed at LSPs and developing a logistics training academy. The result will be transformational for petrochemical logistics.

MODON is in discussion with several private sector partners on five major investment opportunities – a pilot multimodal logistics terminal in Dammam Second Industrial City, a network of rail-linked multimodal logistics

terminals in Saudi Arabia, a Jeddah Third Industrial City Red Sea logistics hub, a network of truck terminals in Saudi Arabia and build-to-let warehouses.

The private sector has a critical role to play in job-creation and a number of incentives are available, such as exemptions from customs duties on machinery, equipment, tools and spare parts imported for industrial products, primary raw materials, semi-finished goods necessary for industrial projects (provided they are not available locally) and provision by the government of plots of industrial land at a nominal rate of \$0.53 per sq metre, low electricity and water rates and preferential treatment for local products in government procurement.

Two-thirds of Saudi Arabia's imports enter through Jeddah Islamic Port, which handled 4.7m teu in 2012, Dammam handled 1.6m TEU. Jeddah is a crucial import/export gateway for the petrochemical producers in Yanbu, which, with Jubail, accounts for 10% of the worldwide production of chemicals.

Major rail-linked multimodal logistics terminals (MLTs) will be located at the intersections of the rail and industrial city network. Here goods can be fed into the rail network from regional

manufacturers for distribution to domestic and international markets.

There may also be other terminals at ports or other industrial conurbations that could be developed by other parties. The Royal Commission for Jubail and Yanbu, for example, is considering tank container terminals on land opposite the Sadara petrochemical and SARTORP refinery sites in Al Jubail. Sadara and SABIC may consider their own terminals, which would be rail-linked to the port and to inland destinations.

However, before the arrival of rail, the increasing production of specialty liquids in Al Jubail will be dependent on an increasing army of tank containers and swap bodies to move product to local ports and GCC destinations.

The terminals being planned by MODON will initially be focused on two approved rail lines – the landbridge from Jeddah via Riyadh to Dammam and the north-south line between Riyadh/Jubail and Al-Haditha.

Another vision becoming a reality is the construction of the industrial city in Sudair, 140km north of Riyadh, which, when complete will measure 265m sq metres and will benefit from a rail link already constructed, a dry port and its own international airport.

Tank container operators with a strong interest in rail-linked terminal investments – and there are only two – will no doubt be exploring these opportunities, although the terminals' multi-product focus may reduce the interest of those concentrated principally on chemical logistics.

The selection of Dammam Second Industrial City as the pilot terminal was driven by several factors: it could act as an overflow hinterland terminal for the chronically-congested port; it is close to the main road networks of the UAE, Bahrain and Qatar and the petrochemical activity at Al Jubail.

It is a successful industrial city with over 650 tenants (30 from the chemical sector) and sits on the crossroads of the planned Dammam-Riyadh rail link and the Saudi Arabian section of the GCC's mainline. Over 23,000 freight vehicles a week move through Dammam 2nd Industrial City, 9% of which are container vehicles.

The Dammam facility will have three container terminals with areas for bonded and non-bonded goods, reefers and dangerous goods. Tank containers could therefore be moved rapidly out of Dammam port – uncleared – into the terminal for subsequent clearance. A tank container depot will be built, which, uniquely, will also be able to clean rail tank cars because of its rail connection. No other such dual-cleaning facility is planned in the Middle East.

MODON is determined to move ahead quickly and is keen to select the right "partners", not "suppliers", to realise all these opportunities – this means there is no tendering process.

MODON is also aware that to establish an effective network it must look outside Saudi borders and form relationships with its peers in other GCC countries, and even further afield. With consultant Camelot it has introduced the concept of "twinning", whereby fully optimised rail corridors are developed between industrial cities in different countries which work together to optimise the network with complementary flows.

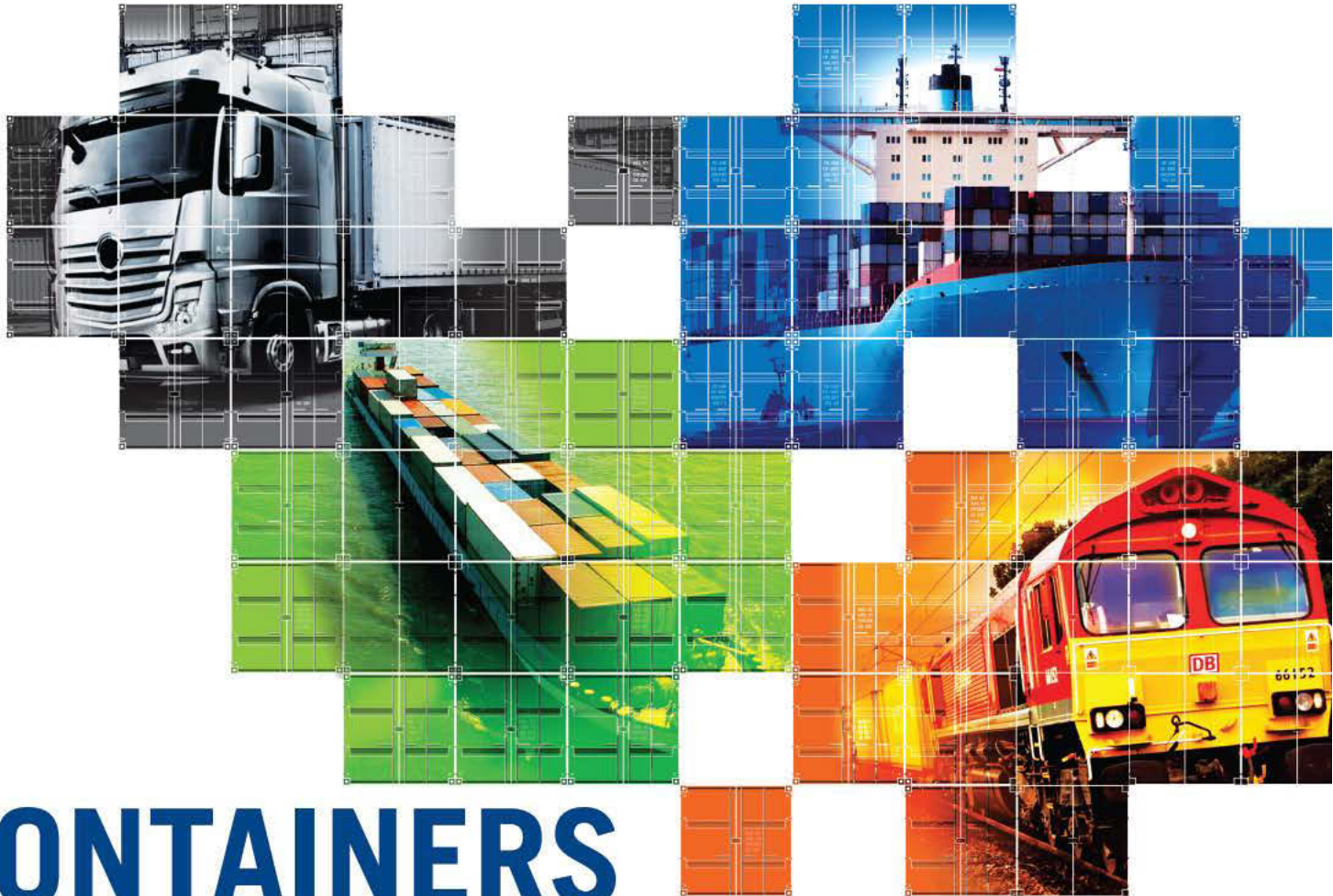
Further information regarding MODON's logistics developments in Saudi Arabia is available from Saleh A. Al-Aqil (+966555441987 saqil@modon.gov.sa or Mark Appleyard +966 583400186 mappleyard@modon.gov.sa).

Leslie McCune is Editor of Tank Container Magazine and is an independent petrochemical supply chain expert.



Camelot's Mark Appleyard

11-13 NOVEMBER 2014
ROTTERDAM AHoy ■ ROTTERDAM



CONTAINERS IN MOTION

CONTAINER TRANSPORT ACROSS ROAD, RAIL AND SEA

SEE YOU IN ROTTERDAM!

Co-locating with



Organised by

informa
exhibitions

Follow us on



Local knowledge is the key to success

Demand for tank container services is increasing in the Middle East – but it's a patchy business, dominated by Saudi Arabia. Felicity Landon reports

There is no 'Middle East market' as such, says Nils Thater, Bertschi's general manager for the Middle East and India, based in Dubai.

"Operating in this region you have to take a step closer and analyse the region and its momentum on a country level," he says. "We deal with several individual markets which differ to a great extent from each other. We observe varying timelines and strategies, in terms of the development of the chemical and petrochemical industry, and also the infrastructure developments are significantly different. Ultimately, the arising opportunities and our involvement in these markets vary as well."

Bertschi expanded into the Middle East less than two years ago, in November 2012, establishing a regional office in Dubai for overseeing its deepsea tank container transport in the Middle East and Indian subcontinent. "Together with our agent and partner, Wilhelmsen Ship Services, which represents us in this region, we are developing the Bertschi tank container business in all countries in the region," says Thater.

"The region is an important part of our strategy of establishing logistics services for the liquid and dry bulk chemical industry on a global scale. The Middle



The region is an important part of Bertschi's global network strategy

East and India have historically strong trade and commerce relations with Asia, Europe and the US, and thus they also attract a fair share of the global ISO tank container movement – not to forget the regional trade between the Middle East and Indian Subcontinent, which is significant."

Thater highlights Saudi Arabia as the country to watch. "They have invested heavily over the last few years to transform their oil-based economy to a more diversified downstream-oriented economy," he says. "This has resulted in a substantial increase in the demand for transport solutions

in ISO tank containers. Looking at the world-scale developments still to be commissioned, that trend is likely to continue."

An important part of Bertschi's operations in Saudi Arabia is Aldrees Bertschi Chemical Logistics Services Co, its joint-venture with the Saudi company Aldrees Petroleum & Transport Services. According to Thater, the joint-venture has just started operations and commissioned its terminal facility in Jubail. It is taking steps to increase the services it offers.

"Both partners have extensive experience and resources in their own areas of competence and by

combining them we will be in a position to offer very interesting services in terms of transport, terminal and onsite logistics in Saudi Arabia and the GCC (Gulf Cooperation Council states of Saudi Arabia, Kuwait, Qatar, UAE, Oman and Bahrain," says Thater. "The terminal in Jubail will function as a logistics platform, also complementing our deepsea offering in ISO tank containers."

Bertschi has also signed an MoU with Etihad Rail as part of its "commitment to the intermodal vision and strategy of the UAE and the GCC", he says. "We believe that the GCC rail network will greatly benefit the exchange of goods and services in the region, and especially the chemical and petrochemical industry is likely to benefit."

"Bertschi has followed an intermodal strategy in Europe since our inception in 1956, and over the years we naturally developed a profound understanding of the intermodal business. We will use this knowledge to drive our intermodal strategy in the Middle East."

As to the challenges, Thater says the Middle East has certain characteristics "you have to acknowledge".

"Customs procedures can be tedious and the movement of equipment within the region, whether it be laden or empty, is not always as efficient as you would expect. Payment cycles, due to various reasons, tend to be longer than, for example, in Europe, and seasonal changes in the demand can be extreme."

HOYER has been active in the Middle East as far back as the 1990s, opening its regional office in Dubai in 1999 and also making use of an agency network in the region.

Again, it is Saudi Arabia that is highlighted as the big opportunity.

"Our core activity is the operation of tank container transports

in deepsea traffic from and to the region. We do not operate our own depots in the Middle East, but make use of third party facilities," says Ewelina Jankowski, team leader of HOYER's corporate marketing centre.

"The expansion of downstream chemical production in Saudi Arabia is responsible for the biggest growth of recent years. The growth in countries like UAE is disappointing, while Qatar is still not so active in downstream chemical production. Today we still forecast growth in exports from Saudi Arabia in the coming years. We also have positive hopes that the sanctions on Iran will be lifted in July, which would open doors for new opportunities in Iran, being the second largest chemical producer in the Middle East."

However, she says, the growth in Saudi Arabia has attracted many competitors. "Not only other global operators have opened their offices in the region but also many freight forwarders, entering the market with mainly lease equipment and second-hand tank containers. This has made the market extremely competitive and we expect the margins will remain under strong pressure in the coming years, because of the huge capacity in the market."

In Saudi Arabia, there is no regulation around training drivers moving hazardous goods, but we have established western European standards, which are among the highest in the world. There have been talks about regulating the transport of chemicals and dangerous goods and at some point it will happen."

There is always the risk that any less well-financed local operators may compromise on the safety and quality of their operations due to the financial pressure, says Ms Jankowski. "This is not good for our industry and we are happy with platforms like CDI MPC and hope local customers will make participation in this programme mandatory."

HOYER has responded to the growth in petrochemical and chemical production in the region by setting up a joint-venture, Hoyer Saudi Arabia Co. (HSA), with Global Marine Group and Sharaf Group. This joint-venture, which was signed into being last year, has a head office in Dammam and branches in Al Jubail and throughout Saudi Arabia.

It has three areas of focus, says Ms Jankowski: liquid bulk transportation within the GCC by road and intermodal services, an independent drumming plant in Al Jubail, and onsite logistics projects for the chemical industry.

Another company with a joint-venture is Suttons Group, which teamed up with Arabian Chemical Terminals (ACT) to create Suttons Arabia in July 2012.

Simon Bury, Suttons' vice-president for Middle East operations, says: "Suttons started here with an agent about five years ago, purely focusing on tank containers, import and export."

"We made a lot of progress in terms of growing the volume of tank containers coming in and out of Saudi Arabia, which is by far the biggest market for Suttons within the Middle East – there are bits in the UAE and occasionally Qatar and Oman, but other parts of the GCC are not a big part of what we do."

"The focus is on Saudi Arabia and in a few years we have gone from starting with an agent to importing and exporting around 1,000 tank containers a year."

He adds: "The growth is

because of the huge amount of petrochemical investment over the past ten years in petrochemical manufacturing capacity in Saudi Arabia, and particularly in polymers. More capacity is coming onstream in different feedstocks and consequently you have raw materials coming in and going out in tank containers.

"There is a marked increase in specialty liquids production, most of which is hazardous, hence the demand for tank containers is increasing, with product going into Europe, America and South-east Asia."

However, he emphasises, while demand for exporting liquid chemicals in tank containers is increasing, not everything goes that way – "there is also increasing demand for exporting liquid chemicals in chemical tankers".

Simon Bury also voices concerns over safety standards. "We recruited drivers who were competent in reading and speaking English and then trained by driver trainers from the UK as if they were going to be working in Europe, to ADR standard."

"In Saudi Arabia, there is not a lot of transport regulation – what we are doing is voluntary. There is no regulation around training drivers moving hazardous goods but we have established western European standards, which are among the highest in the world."

"There have been talks about regulating the transport of chemicals and dangerous goods and at some point it will happen."

Suttons Arabia acts as agent for Suttons International in the region and also interfaces with Suttons' agents in India, Pakistan, Bangladesh and Sri Lanka, administering this network from its Saudi offices.

Among its customers are SAMCo, the Tasnee-Dow joint-venture plant in Al Jubail, which produces glacial acrylic acid (GAA) and butyl acrylate



Suttons imports and exports around 1,000 tank containers a year in the region

(BA) for local and global demand.

Transporting GAA is a challenge because if the product goes above 32°C, it can polymerise. "Once the chemical reaction starts, it is difficult to arrest," says Bury. "In Saudi Arabia in the summer months, it is not unusual to have daytime highs approaching 50°C."

"We were able to provide a design of super-insulated refrigerated tank container that would deal with the high temperatures. The product is loaded at 20°C and the temperature is set at 20°C at the plant."

"The tank containers then go to the depot at Dammam port, where they are plugged in and monitored. If the temperature goes up, the cooling system switches on. Keeping the product at a constant temperature maintains its quality."

Suttons Arabia has also recently secured business with Petrochemical Conversion Company (PCC), formed in 2011 and 50:50 owned by Saudi Industrial Investment Group and Arabian Chevron Phillips Petrochemical Company. Suttons is supplying a fleet of tanks and trailers.

Separately, Suttons Arabia is looking at developing a depot in the logistics zone in Jubail Industrial City II, likely to include a tank cleaning station, maintenance and other services and a new warehouse, probably in Dammam.

"In all areas of chemical logistics there are opportunities, and our next stage in the joint-venture is to get a bit more scale – particularly in terms of getting the warehouse off the ground and providing the opportunity for added-value services like drumming, while the depot will provide the opportunity to develop services such as waste packaging management, maintenance and storage of tank containers and tank cleaning," says Bury.

"Having a local, respected partner in Saudi Arabia is very important. You don't legally have to have a local partner, but you stand more chance of success if you engage with a joint-venture partner or agency that understands how business is done and has the resources and experience to sort out commercial legislation, business licences and other documentation – particularly as much of it needs to be in Arabic."

Forward Motion
since decades

TANK SYSTEMS

for transport and storage of liquids and gases



INTERMODAL



WEW Westerwälder Eisenwerk GmbH
Ringstrasse 65a
D-57586 Weitefeld - Germany

Tel.: +49 (0) 2743 - 9222-0
Fax: +49 (0) 2743 - 3411

www.wew.de

E-Mail: wew@wew-tankcontainer.de

Cleaning up in Saudi

In the 20 years since the specialised art of tank container cleaning arrived in the Middle East, it has become an integral part of the industry infrastructure – growing as demand has increased. Wendy Pascoe reports

In the past two decades, cleaning has become an important part of the tank container infrastructure in the region, growing in step with the expansion of its main customers which make up the Middle East's petrochemical industry.

One of the latest and largest specialist tank cleaning depots is a Jubail cleaning station in the Eastern Province of Saudi Arabia, part-owned and operated by Kanoo Terminal Services (KTS).

When KTS began in the mid-1990s, it was the first company in the Middle East to diversify and specialise in tank container logistics and cleaning. Its depot in Dammam was the first tank cleaning station in the Middle East, becoming fully operational in 1994.

This marked the start in Saudi Arabia of a steady but gradual increase in the use of tank containers, with Eastern Province a logical market, given that most of the petrochemical production in Saudi Arabia is based in Al Jubail. With its single cleaning bay/single cleaning head, the Dammam station has a cleaning capacity of 250 tanks a month. It can also handle tank repairs, excluding the shell, and both hydro and pneumatic tank testing.

In 1996 KTS's second station opened in Jeddah, serving the Western Province, mainly for chemical companies based in and around Jeddah and Yanbu, 300 km to the north. The Jeddah



Jubail Industrial City, the world's biggest ongoing civil engineering project

depot has two cleaning bays and one cleaning head and has a total capacity of 350 tanks a month on one shift. However, it has a more limited tank repair facility.

However, the company's newest facility, at Jubail, is in a different league. The sophisticated cleaning station was built by Groninger Cleaning Systems of the Netherlands.

It is no coincidence that KTS chose Al Jubail. A modest fishing village until the mid-1970s, Al Jubail is now better known as the home of the largest petrochemical production plants in the Middle East. Together with Yanbu on the west coast, it accounts for 10% of all global petrochemical production.

Two of the region's biggest seaports are close by and Jubail Industrial City is the world's biggest ongoing civil engineering project.

Quiet fishing along the edge of the lagoon is a distant memory.

Krishna Kumar, Managing Director of KTS, says: "The Jubail depot is the largest and most modern cleaning facility we operate at present. All systems are automated and operated through touch screens. Manufacturer Groninger can log in (remotely) in case there are any faults and guide us on how to rectify anything, which is a huge advantage.

"The stations are of modular build and, especially in the case of the Jubail depot, it is fairly easy to add components in order to increase capacity in the future."

While the Dammam depot and cleaning station can handle 250 containers a month in a single shift, the Jubail site can look after considerably more than double that. It became operational in

2012 and has four cleaning bay tanks (or one road tanker bay), two cleaning heads and two blow dry installations. It can process 600 tanks a month in one shift. It too can carry out tank repairs, and hydro and pneumatic tank testing.

Currently KTS is cleaning approximately 3,500 tanks a year in Dammam, 4,000 in Jubail and 1,400 in Jeddah. Mr Kumar says: "Many tanks for Jubail are, for the moment, still coming through Dammam port, and exports leave from there, which is why the volume of Dammam is still quite high.

"At all three locations we clean most common chemicals. Customers are requested to send us the material safety data sheet in advance so we can approve it for cleaning.

"We also clean some difficult products with procedures set up in consultation with the manufacturer of the product and the customer. If this means extra investment in our current set up at the cleaning stations, a study will be carried out in advance to decide if it is feasible or not.

"We are focusing at present on upgrading our Dammam facility with the latest technology, as is operational in our Jubail plant, as the Dammam location remains vital to the chemical industry in the Dammam industrial cities.

"After Dammam our focal point will shift to Jeddah in order to upgrade the facilities there as well."

The majority of the tank containers KTS cleans are the industry workhorse, the T11. But while the tanks may not change very often, their contents do.

Products such as MDI and TDI (raw materials for polyurethanes, and often used in the manufacture of items such as foam seating and rigid foam insulation panels) will soon be produced in Saudi Arabia for the first time by SABIC (Saudi Basic Industries Corporation), one of the world's



leading manufacturers of chemicals, fertilisers, plastics and metals.

The isocyanates will also be produced by Sadara, the \$20 billion Dow Chemical Company / Saudi Aramco joint-venture in Jubail which is scheduled to start its polymer production in November 2014. Currently, tanks carrying MDI and TDI have to be sent to Europe or Singapore for specialist cleaning before their next movement.

KTS's Arco Verhoeven says: "The company can't clean tanks with these products as last cargo.

"Sadara will start up at the end of this year and, if the need and volumes are there, we will certainly look into expanding our capabilities for these kind of products."

Mr Verhoeven adds that it has been necessary for KTS to develop special expertise to clean tanks which contain new and more complex chemicals.

"The cleaning procedure was set up with the expertise of the manufacturer and the customer. This is how we approach difficult products in order to come to the most cost effective procedure with minimum environmental impact."

As techniques develop, then best practice is sometimes shared. Mr Verhoeven says KTS often speaks with JTS (Joint Tank Services) in Dubai. He says: "We do cooperate in terms of cleaning, safety and environment. However, the cleaning systems are not the same, although I believe the new cleaning plant from JTS has some components from Groninger."

Mr Kumar says KTS will continue to invest in its cleaning plants in order to serve its customers better. However, the most important factor for the company is the safety aspect.

He says: "Safety has been one of our main focus points for some years in order to create and keep a safe working environment in KTS. And alongside safety, we are also working hard to reduce our environmental footprint by investing in waste water treatments systems, minimising water usage and preserve energy wherever possible."

Ever since it became accepted that ISO tank containers were a massive technical improvement on steel drums – far easier to transport, more cost-effective, safer, neater and a more practical way to move around the world – there has been increasing demand for cleaning them.

Last year the International Tank Container Organisation estimated that there were more than 330,000 tank containers currently in use around the world and, of those, just under 30% were operated by chemical producers and other cargo shippers.

As reported in the last issue of *Tank Container Magazine*, double-digit demand growth is confidently expected in the next decade. And all these tank containers will require cleaning, repairing, servicing and periodic testing, increasing demand for the services offered by tank container depots – including cleaning.

Opportunity knocks, but...

The TT Club's Mike Yarwood looks at the risks and rewards for transport operators associated with the expanding chemical production industry in the Middle East



With global chemical sales topping €3,127 billion in 2012, a 12.8% increase on 2011, we appear to be witnessing the beginning of a shift in the regional market shares. While China remains the largest global producer, the Middle East is considered among the fastest-growing markets and a future major competitor to the markets in Europe.

While petrochemical production remains the main focus in the Middle East region, there is a production shift towards intermediates and higher-value products.

Growing technological expertise and multi-billion dollar investments will be driving large-scale growth

in the Middle East petrochemical sector in the coming years. This will fuel export growth.

China is the largest export market for Middle East products, but domestic demand is increasing rapidly.

The Middle East region holds 67% of global oil reserves and 45% of all natural gas reserves. Its expanding petrochemical sector has benefited from ready access to cheap raw materials, as well as from its geographic position in relation to emerging markets such as those in the Indian sub-continent and South-east Asia. It also enjoys considerable support from governments and local authorities.

Such large scale growth will

undoubtedly provide many opportunities for logistics operators, as greater capacity will be required to service exports from the region. However, as is often the case, opportunity does not come without risk.

From the employment of new and potentially unfamiliar contractors to entering contracts with what may be new shippers, operators will be likely to – and in some cases unwittingly – expose themselves to operational and commercial risks.

As the market grows and it becomes viable to do so, many operators are also likely to open new autonomous depots in the region, which can also have potential risks in what may be an

The best way Tankway



TANK LEASE - LOGISTICS - FULL OPERATIONS

Tankway is your partner if it is concerning logistical solutions for storage and transportation of packaged and liquid bulk products. Whether your products are related to hazardous/non hazardous chemicals or foodstuff, Tankway has the right equipment and offers the most efficient logistical solutions.

Tankway Rental & Logistics
Koekoeksedijk 11c
4761 RG Zevenbergen
The Netherlands
+31(0) 168 336777
info@tankway.nl



CRANE Composites

Do you want to reduce your M&R Costs?

**Choose AXSG Tank Cladding-
Providing Leasers, End Users, OEM's, and After Market Service companies
with a necessary solution for new build & refurbishing applications.**

ArmorTuf-NXT with Gel-Coat (AXSG) benefits:

- Light Weight
- High Flex Modulus
- Unmatched Gloss Retention
- High Flexural Strength
- Impact Resistant
- Puncture Resistant
- Corrosion Resistant

**Join our
expanding customer base...**



Contact your local Crane Composites representative for more information:

www.cranecomposites.com/axsgtanks	Europe- +44 (0) 7973 819372	Asia- +86 21.61273000	Middle East- +971 56 1760378	Americas- +1.815.531.5458	international@cranecomposites.com
--	--------------------------------	--------------------------	---------------------------------	------------------------------	--

unfamiliar economic, business and legal environment.

The TT Club recommends that robust selection criteria is developed – particularly when it comes to the employment of sub-contractors, whether they be haulage contractors, tank cleaning and heating stations or repair facilities.

Due diligence should be performed to verify the validity of the company, their credentials, their financial viability. Their insurance cover and, where possible, references to verify their expertise should all be considered. Where appropriate and possible, training records should be requested and viewed to evidence their expertise, especially in tank container usage and operation.

The development of an approved contractor list should also be a priority as a means of mitigating potential risks and maximising safety in the transport of tanks and chemicals in dry vans.

It is also important to know your customer. TT Club has had experience where low-grade chemicals were mis-sold as higher-grade products, leading to the rejection of the cargo by the consignee as being out of specification.

The logistics operator can be exposed to significant storage costs while a dispute between seller and buyer is resolved, frequently tying up large numbers of tank containers for several months.

In one instance, this was compounded when, after several months, it was discovered that the low-grade material had solidified and had begun to attack the integrity of the tank container, resulting in deep pitting to the steel shell and rendering the tanks as total losses.

When companies move into unfamiliar operational territories, it is essential for them to



Growing technological expertise and multi-billion dollar investments will be driving large-scale growth in the Middle East petrochemical sector

achieve a full appreciation of the prevailing market conditions, general business culture and expectations from local parties such as enforcement agencies.

Since local economic and business ethics may differ, a local partner or agent could prove invaluable in providing assistance and expertise. Such collaborations may also offer broader business opportunities and help operators establish themselves in a new region more rapidly.

In the event of an incident,

whether it be equipment damage, cargo contamination, cargo leakage or something more serious requiring immediate action to mitigate loss, an agent with local knowledge and contacts will greatly assist.

In the Middle East, the benefit of a resource with regional acumen is not to be underestimated.

It also goes without saying that the parties need appropriate insurance partners, with effective expertise and global reach.



The Middle East holds 45% of all natural gas reserves

UAE ports splash out

The expansion of capacity and facilities at the principal gateways to the emirates will ensure higher levels of service and reliability for the Middle East's tank container trades

A series of major investments is taking place to enhance infrastructure and equipment at leading UAE container ports. While these investments are not specifically targeted at the tank container business, they will allow the ports to better handle the growing volume of local tank container traffic being generated by both the UAE's ongoing economic development and diversification programme and the transshipment activities to other Middle East countries, such as Saudi Arabia, Qatar and Kuwait – increasingly important markets for the global tank container sector.

Dubai's Jebel Ali port, operated by DP World, is the region's main hub and the principal gateway for UAE imports and exports. Business is booming, with Jebel Ali handling around 3.6 million TEU on Q1 2014, 18% higher than in the equivalent months of 2012. Last year the port achieved a relatively modest 2.7% growth rate, but there was a far more rapid increase in the final quarter, which has clearly been sustained into 2014.

DP World does not break down container handling figures by equipment type. However, Mohammed al Muallem, Executive Vice-president and Managing Director, UAE Region, says: "We have seen sustained growth in tank container movements since 2011."

DP World is taking decisive steps to expand capacity at Jebel Ali and avoid the risk of supply chain



Plans to build new berths at Khorfakkan are being explored

bottlenecks in the future. A further six berths, capable of handling four million TEU annually, will be brought on line by the end of 2014, allowing the port to handle up to 19 million TEU a year in total.

Mr Al Mouallem says, "All our customers across the whole supply chain, including tanker container owners and operators, will benefit from the new, modern Container Terminal 3 (CT3), which will be the world's largest semi-automated facility. As a direct response to feedback from our clients we have invested US\$ 850 million in the new terminal."

CT3, which offers 1.86km of quay with water depth of up to 17 metres alongside, is designed to handle the biggest containerships afloat, and when it is operational later

this year, Jebel Ali will be able to handle 10 mega-container vessels of 18,000 TEU size simultaneously.

To service them, DP World has 19 of the largest ship-to-shore container cranes in the world and 50 automated rail-mounted gantry cranes on order.

Mohammed Al Muallem says, "The development of port infrastructure to handle these giant vessels is a major requirement."

Over the past year or so DP World has also completed a number of other significant projects at its Dubai flagship port. Three of its container berths at Jebel Ali were dredged down from 14 metres to 16 metres to facilitate access for larger containerships and a 400-metre berth extension at CT2 was commissioned in

June 2013, adding around a million TEU of annual capacity.

DP World already has specific areas set aside for tank container storage at Jebel Ali and these were expanded in line with the CT2 project. The company reports that further dedicated areas to meet the needs of tank container operators will be created when the new CT3 is open for business.

Jebel Ali has two main rivals for container traffic in the UAE: Abu Dhabi's new Khalifa port, which opened in late 2012; and the well-established Khorfakkan Container Terminal (KCT), operated by Gultainer.

Last year Khalifa port handled more than one million TEU, and a significant increase is projected for this year with the decision of the P3 alliance, formed by Maersk, MSC and CMA CGM, to include the new Abu Dhabi port in its Asia-Europe schedules.

Capacity at Khalifa will rise to 1.8 million TEU this year with the addition of three ship-to-shore gantry cranes and more landside container handling equipment. Three more cranes are scheduled to be delivered in 2015.

Tank container traffic is expected to be a positive element within Khalifa's business, given the presence on an adjacent site of the massive KIZAD (Khalifa Industrial Zone Abu Dhabi) free zone, which has been set up to attract downstream petrochemical and other industries.

Khalifa is gearing up to handle more business for the nearby Borouge petrochemical plant in Ruwais, which is in the process of being expanded, and may generate new opportunities for tank container operators.

Mohammed Al Shamisi, CEO of Abu Dhabi Ports Company, believes Khalifa port and KIZAD will complement each other well.

"A lot of big industrial names are coming to the free zone



New cranes arriving at Jebel Ali CT3

and they will make Khalifa port their hub," he says.

In contrast, KCT experienced a rather disappointing 2013, with overall throughput similar to 2012.

However this year will be a different story, with the new P3 alliance due to start calling at the UAE east coast port, which is strategically located outside of the Strait of Hormuz.

Four strings a week are expected to call at Khorfakkan, boosting throughput and the number of weekly connections to key markets, such as Europe, Asia and the US. Transit times between the UAE and global markets are expected to be shortened as a result, something on which the tank container market can capitalise.

In partnership with Sharjah Ports Authority (SPA), Gultainer is planning a programme of investment at KCT to accommodate higher levels of transshipment and import-export traffic anticipated over the next few years. Four more super-post-panamax quayside gantry cranes are due to arrive later this year, as well as 12 more RTGs.

Gultainer is also hoping to add more berth capacity. It is expected that, at the very least,

a single 400-metre berth will be built over the next two years.

Not far from Khorfakkan is Fujairah, formerly one of the country's leading container ports. Although business has waned somewhat, it still has a well-equipped terminal, operated by DP World.

The Fujairah hinterland is a significant generator of refined petrochemical products and chemical traffic and, as a result, the port could well see increased tank container activity.

Fujairah has a massive tank storage sector, which is being rapidly expanded. For example, Vopak Horizon Fujairah, Socar Aurora, Concord and Prime are all building new tank storage units, and additional facilities have been commissioned over the past 12 months by Aegean, ENOC and Gulf Petrochem.

Once all of these facilities have been built, Fujairah will have over nine million cubic metres of tank storage capacity. The state-owned International Petroleum Investment Company (IPIC) is also working on plans to develop a US\$3.5bn refinery in Fujairah, that could yield opportunities for increased tank container activity.



Your experts in tank container technology

TWS has more than 25 years of experience in renting out standard and special tank containers for liquid products to the chemical and food industries. Customers rely on the outstanding quality of its fleet and value its flexibility in terms of volume and technical features.

For more information: E-mail: twsg@twsg-gmbh.de and web: www.twsg-gmbh.de

TWS
RENT-A-TAINER

Tankcontainer
DIRECTORY

2014

Tank Container Directory

The 2014 edition of the Tank Container Directory will be out soon (May 2014). Full of updated and fresh information with addresses, contact details and information it is the **must have annual for the tank container market.**

The four editorial sections are:

Each section has a geographic listing at the front followed by a comprehensive alphabetical listing.

- Tank Container Operators
- Tank Container Lessors
- Tank Container Manufacturers
- Equipment & Service Providers



To order your copy please visit: www.tankcontainermedia.com

Blowing hot and cold

As the transport of products shifts from steel and plastic drums to tank containers, there is a growing demand for lightweight, self-sustaining heating and refrigeration systems, reports Katerina Kerr

Refrigerated and controlled atmosphere transport methods have been active in Europe for over three decades. TRS Energy Systems, a Netherlands-based market specialist in sustainable transport refrigeration and heating systems has been operating for three decades and produces between 200 and 400 units a year.

However, in new chemical plants, especially in the Middle East, there will be increased demand for heating or refrigeration units for tank containers.

TRS Energy Systems' units are designed for trucks, containers, tank containers and other controlled-atmosphere refrigerated transport. The company's units allow the operator to reduce space, weight and costs.

A refrigeration system works by compressing refrigeration gases. These then go through a condenser and finally a heat exchanger. Glycol is cooled and pumped around the tank barrel through a series of coils.

"Quite often a tank container experiences refrigeration or heating downtime, because it has no power source available," says Eeuwe Kooi, TRS CEO.

"If, for example, a tank container switches mode from ship to train it is normal to experience approximately two days of lost power, and sometimes as many as four hours if loaded



TRS Energy Systems offers glycol heating for tank containers

simply onto a ferry."

When power heating and refrigeration are lost, the operator usually wants to make up for what could be two or four days' downtime within just one day, explains Kooi.

The company has designed high capacity units to accommodate this need: "We started out with units of 7,000watt refrigeration capacity but nowadays 12,000watt is the standard capacity to facilitate for any lost cooling days."

"If continuous cooling is possible and power supply is guaranteed 24 hours a day, 4,000watt capacity

units are all that are necessary. However, 12,000watt is the standard in recent years."

TRS tank container units have cooling capacities up to 12,000watt and heating capacities up to 17,000watts.

"We specialise in glycol heating units, with or without integrated diesel generators and glycol refrigeration units also with or without integrated diesel generators," says Kooi.

TRS Energy Systems' most popular product is its high-capacity tank container refrigeration unit TR 12000.

This system allows for high-capacity heating and refrigeration and is designed to operate on both 380V 50Hz and 440V 60Hz.

When a 380V circulation pump is used, the system will not have any problems with air pockets in the glycol system as the high-capacity circulation pump forces trapped air into the expansion tank.

As an option the TR12000 can be designed with 5,000watt or 10,500watt heating.

A more recent development is the TRS Air-Heating unit for tank containers.

"This works through a double layer system," explains Kooi. "In order to use an air heating system there must be a very thin second skin installed between the tank and the insulation."

The space measures approximately 20mm (down to 10mm locally at the sides) around the tank and is the optimal size for hot air to be evenly distributed. "This is specifically for 200 degrees Centigrade or more products," says Kooi.

A system of three units weighs approximately 95kg and is mounted high on the tank

container to avoid damage from flooding and road debris.

"Until now, the only option was to implement a thermal oil heating system, which would see the oil heated to 400 degrees Centigrade or more. This becomes a very expensive method of heating and is very heavy. Such a system weighs around 700kg compared with the TRS Air-Heating system which weighs around 100kg."

The air heating system has also proven much safer. Despite the air having to be heated to 400 degrees Centigrade, the air is cooled instantly as it disperses if there is a leak. However, if you have 400-degree-Centigrade oil leaking from a tank or into the product, the risk of injury is much higher.

"In order to spring a leak in an air system you have to have a hole on both the suction and discharge side for any air to escape. With only one hole the air is replenished. We have never seen a leak with our units," Kooi says.

"The big advantage of the system is that the temperature is evenly distributed around the tank through the use of three vent-heat units. This method achieves

48sq metres of heated surface, as opposed to eight square metres with a glycol system which heats through a series of coils."

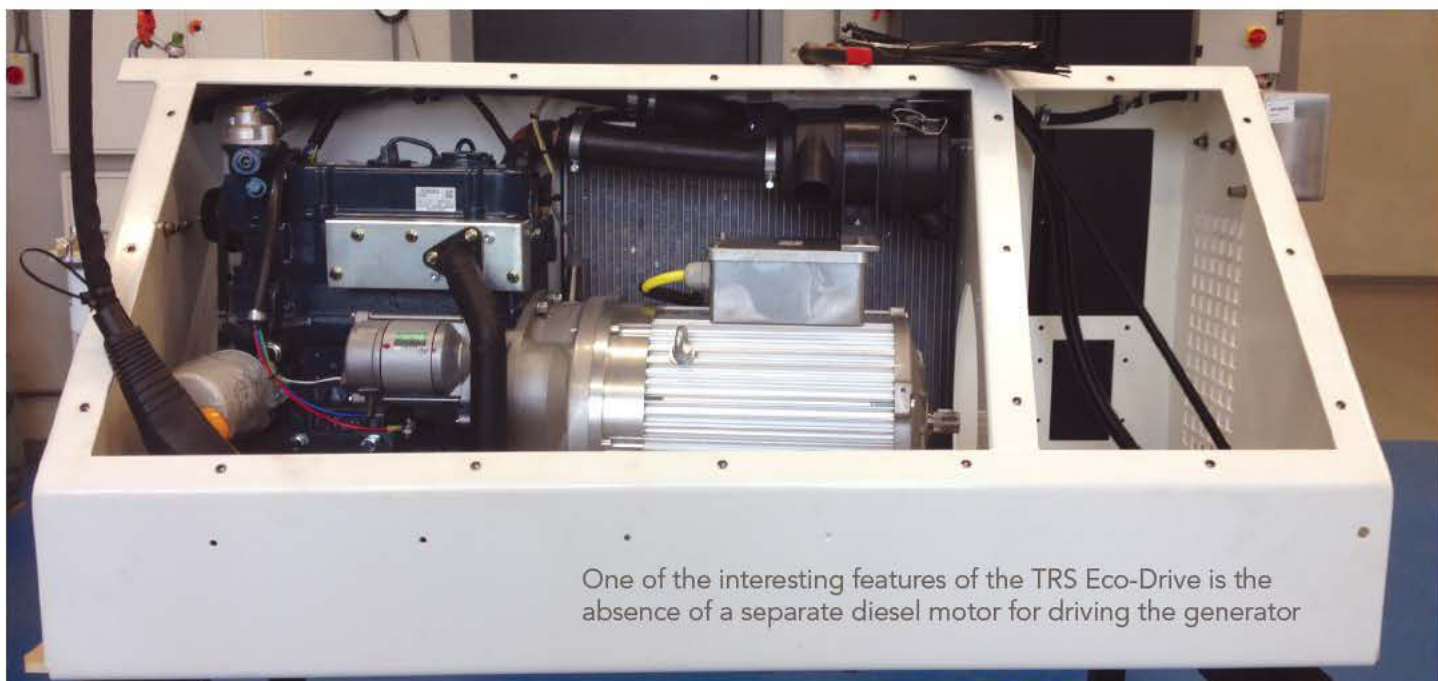
It too offers glycol heating for tank containers. The TRS Glycol-Heating units are fully electrical units with a heating capacity up to 18 kW where glycol up to 130 degrees Centigrade is pumped through the use of steam pockets on the outside of the tank.

The usual glycol to water ratio installed is 50:50. However, when a product is required to be heated over 130 degrees Centigrade, the solution still consist of 100% glycol.

Kooi explains: "The system differs from our competitors because we mount our units on the top of the tank, which is not industry standard. This is to prevent air from getting trapped in the system, which occurs with industry-standard units."

The topside unit includes a large "expansion tank" of 18 litres to accommodate the glycol that expands when heated. The unit weighs just 35kg before glycol is introduced.

Working out the kinks in heating and refrigeration systems is not the only area TRS Energy



One of the interesting features of the TRS Eco-Drive is the absence of a separate diesel motor for driving the generator

Systems has focused on.

"One of the exciting products we have designed and are producing is a three-phase electric power system for road transport and tank container heating systems," says Kooi. "The TRS Eco-Drive is our biggest growth industry."

"These Eco-Drive GenSet systems are not mounted onto the tank container but on the truck itself.

"So if you mount the Eco-Drive onto the truck for power supply instead of a clip-on diesel generator, it is possible to save 1,000kg in weight from the transport of the tank container."

The Eco-Drive itself weighs only 140kg. Kooi explains that tank container transport is always "weighed out" where the tank container is monitored for its maximum weight, not volume of product.

"Companies are constantly trying to save weight in order to transport more goods. It is the most important aspect of the industry."

He notes that many owners and operators try to save weight by redesigning the tank container. This way it is possible to save around 100kg, but by switching to an Eco-Drive GenSet the operator is able to carry a significant amount of extra product.

The Eco-Drive GenSet is fitted to the truck-chassis and is driven by a hydro pump that is connected to the PTO (Power Take Off) motor of the truck. The hydraulic system in turn drives a generator that delivers 400 to 460 volts, depending on the required frequency.

"We are seeing that almost all of our German customers are moving away from diesel generators, as they weigh around 1,200kg, to our Eco-Drive mounted onto their truck."

One of the interesting features of the TRS Eco-Drive is the absence of a separate diesel motor for driving the generator. This creates fuel



TRS's most popular product is its TR 12000 tank container refrigeration unit

savings of approximately 60% as it utilises an efficient, modern truck engine as opposed to the industrial engines used in diesel-driven refrigeration units and GenSets.

This translates into savings of between two and five litres of fuel an hour.

Furthermore, when the driver allows the truck to roll or travel downhill, the power is fully transferred to the brake energy of the truck – saving fuel and the brake system. "When idling, the full power of the Eco-Drive can be accessed," adds Kooi

Kooi continues to invest in developing new products that can operate efficiently and effectively in higher temperature regions.

"Two years ago we designed a new tank container glycol refrigeration unit specifically for Saudi Arabia, because of the extreme high temperatures. For this the systems must include the most robust components that are able withstand higher pressures."

He explains: "Discharge pressures of the refrigeration units are far higher in those areas. We found ambient temperatures of 65 degrees Centigrade.

"It is like trying to operate a refrigerator in a sauna so we simulate these environments in our test simulator in Noordwijk."

Kooi estimates that only 1% of the global tank container fleet requires heating systems and only 0.1% of the fleet requires refrigeration systems. Pure MDI (methylene diphenyl diisocyanate) is the largest volume product moved in tank containers to require heating market.

"In foodstuffs, we see shipments of chocolate that need heating. Meanwhile, the refrigeration market is dominated – 90% – by orange juice, as concentrate and fresh."

Most of TRS Energy Systems customers operate in either the orange juice business – from Florida to Europe – or in petrochemicals, obviously a global industry.

Kooi adds: "We are now seeing more bitumen and other products being transported in tank containers. These products were traditionally loaded into barrels and drums and subsequently stowed in reefer containers.

"The reefer is still a standard unit for orange juice but should be done away with immediately."



Chemical Management Resources Limited

Short-term, project-specific expertise for tank container projects

- **Independent petrochemical and petrochemical supply chain expertise, focused on the rapid growth Middle East**
- **Tank container market research and business planning**

Independent advice on:

- Competitive intelligence Competitor and market analysis
- Business development How and where to position assets ahead of competition
- Strategy development How to penetrate the chemical market or grow share
- Petrochemical training Understanding petrochemical dynamics and product flows
- Partner selection Identification, screening, market reputation

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
- Identified tank container acquisition targets
- Produce the quarterly 'Middle East Tank Container Market Review'

Leslie McCune, Chemical Management Resources Limited

lm@chemicalmanagement.co.uk

+ 44 7783 042 664

www.chemicalmanagement.co.uk



Rising from the ashes

Europe has gained a new tank container manufacturing name, Multitank, which recently launched production at an established factory site in Zaragoza, Spain

Multitank emerged from the ashes of the former Ebro Tank, following its earlier bankruptcy and subsequent liquidation at the hands of the Spanish Court Administrator.

Within weeks of the closure of Ebro Tank, Multitank was able to purchase the manufacturing unit – comprising all tangible and intangible assets (machinery plant, technology, customer base, order book etc) – and also re-employ most Ebro Tank personnel. In this way, the successor firm was able to quickly re-start manufacturing and honour orders in the pipeline. Multitank is, accordingly, aiming to provide the same broad range of services as did Ebro Tank before it.

Ebro Tank had commenced tank construction in 1998, although many of the employees associated with the company have experience going back as far as 1980. Central among these is the newly appointed managing director at Multitank, Jon Echegaray, who oversaw the recent purchase and transfer of assets and ensured production continuity.

He says the demise of Ebro Tank was largely due to the credit crisis of 2009 and the subsequent reaction of banks, which would not renew or extend loans to the company. This forced Ebro Tank to file for insolvency and place itself with a court administrator, as required by Spanish Law. Even though the company continued in production during the insolvency period, and could thus claim to



Multitank intends to stay a relatively specialist producer

have both cash flow and customer orders, it was unable to obtain the 50% of votes needed to lift it out of bankruptcy. This resulted in its liquidation and closing down, as specified by Spanish Law.

Ebro Tank could, however, look back on an impressive and sustained performance. It had tended to focus on more specialised manufacture – in line with many competitors across Europe – with 60% of its output going for export. Sales were made to tank operating/ rental companies based in more than a dozen countries.

One of its biggest overseas markets was Germany, with deliveries to VOGT Tanktainer and BTT Bahntank Transport. Other important customers were GCA Intermodal (France), Katoen Natie (Belgium) and United Transport

Tankcontainer (Netherlands), plus tank lease specialists Trifleet Leasing (Netherlands) and Peacock Container (Switzerland).

The company's domestic customer base, numbered more than 35 of the country's top tank operators/ hauliers, including Concisa, Contank, Eurosolaz, Techniruta and Quimitrans Intermodal.

Plant capacity was previously equivalent to about 250 tank units a year. Although small in comparison with factories in China and South Africa, it encompassed the entire equipment range, including tanks for the carriage of liquid, gaseous or cryogenic chemicals, foodstuffs, dry bulk powders or heated products. These featured either a maritime ISO or European "swap-tank" design. Ebro Tank had also, for some time, represented the Chinese producer



of standard tanks, NTtank.

Ebro Tank focused on producing customised models, with Spanish customers tending to opt for tanks suited for foodstuffs, gas and corrosive liquid carriage. Other buyers from the EU purchased tanks designed for special chemicals and gas transport, whereas fuel and gas-carrying versions have gone to South America. LPG-carrying tanks have gone to Central Asia.

The longstanding location at Zaragoza – close to Barcelona on the Spanish east coast – has proved favourable too, due to its good connection to domestic and overseas transport links.

Its manufacturing reference-capabilities included maritime 20ft tank containers adapted for corrosive chemical carriage (including hydrofluoric acid) and 30ft tank containers for the transport of fuel oils. A 20ft gas tank container had been customised for sulphur dioxide carriage, with a 40ft version for LPG and a 30ft version for anhydrous ammonia and

other amine compounds.

Swap-tank production included triple-compartment and asymmetrical versions, and those offering autonomous or high-temperature heating. A cryogenic swap-tank had further been developed for carbon dioxide shipment.

Other designs were suited for the transport of dairy products, dense bulk solids (such as cement or sugar) or refrigerated ethylene (another cryogenic model).

Multitank intends to stay a relatively specialist producer and also views itself as a technical consultancy, having the capability to build more customised designs, rather than a pure tank container manufacturer.

In addition to newbuild tank equipment, Multitank can also carry out modifications to existing units, according to specific customer requirements, as well as tank repair/maintenance and re-manufacturing work.

The new venture forms part of the larger Eurocontainer group of companies, which is involved in the manufacture of many types of container (excluding tanks). This relationship brings added security. Eurocontainer subsidiary Carvisa produces various types of dry freight container, while another division, Portuense de Contenedores, focuses on specials suited for the carriage of bitumen. Both also operate a factory in Zaragoza.

Following the recent integration of Multitank and its tank

container manufacturing activity, Eurocontainer is now able to offer the entire range of box equipment, while its subsidiaries can benefit from the synergies derived from being a part of a diversified group involved in the same field of business. Consolidated turnover for the newly expanded group is expected to reach €12 million in 2014.

Mr Echegaray explains that Multitank is already taking advantage of certain existing installations offered by Eurocontainer Group, which were not available to Ebro Tank. These include state-of-the-art shot-blasting and painting facilities and a thermal treatment chamber. The new company is also relocating to a larger factory and has plans to double its existing production capability to more than 500 tanks a year.

Multitank views itself to be well placed as there are now no other dedicated tank container builders operating within Spain, and only a few companies producing road tanker equipment. Instead, its main competitors are elsewhere in Europe.

Echegaray says the first batch of tanks was due for completion in April – units suited for foodstuffs' transport. These have been built for a Spanish customer, with further orders expected. He adds that Multitank is receiving queries from previous and new customers, both from within Spain and overseas.

He says he is encouraged by the customer support being shown in the new venture, and by the demand for tank container equipment which is once again growing within Spain – consistent with a general European revival – after several weak years in succession. And the Spanish transport economy is now reported to be recovering at a quicker pace than had earlier been anticipated. Demand is also growing within South America.



International Tank Container Organisation



ITCO's mission is for Tank Containers to be the preferred method for transporting bulk liquids, focusing on quality, safety and environmental issues.

ITCO is working to promote operational safety, harmonise national/international regulations and improve market education.

- 135 Member Companies from 20 Countries
- Representing over 70% of Global Tank Container Capacity
- Five Divisions: Manufacturing, Operating, Leasing, Service Providers and Inspection/Surveyors
- Promoting the Tank Container to Industry, the Public and to Regulatory Authorities



PAKISTAN TERMINAL
OPERATORS

PAKISTAN TERMINAL OPERATORS



Your Preferred Partner in Liquid Tank Cleaning

WHO WE ARE

Pakistan Terminal Operators (Pvt) Ltd. (A JV Between Freight Connection Pakistan & E2ESCM (Pvt) Ltd) is the first ITCO Certified ISO Tanks cleaning facility in Pakistan. It has changed the dynamics of the liquid transportation industry in Pakistan by offering the state-of-art Facility by German Company Weidner, internationally renowned for its pressure cleaning systems.

OUR SERVICES

- Cleaning
- Repairing
- Inspection
- Handling and Storage



Head Office Address

4th Floor, Bahria Complex 4, Main
Chaudhary Khaliq UZ Zaman Road, Gizri, Clifton
Karachi, Pakistan.

Freight Connection Group

Contact

info@fcg.com.pk
Ph: +9221 3 5147777 - 81 Fax: +9221 3 5147776
www.fcg.com.pk