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"This is an exciting time for us as a company. We are achieving many great breakthroughs."

- Philip Lee, RAM Spreaders CEO

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CIS markets are seeing unprecedented growth. In order to leverage the opportunities presented by the growing CIS region, in particular Black and Caspian Sea, we have added a new member – Evgenii Kudriavtcev – to our team. Based in Russia, Evgenii is tasked to grow our presence in the CIS region with the full range of RAM-SMAG range of spreaders and bulk handling equipment.

Winning a Business Accolade

Just months after we bagged the International Bulk Journal Innovative Technology Award, we received another prestigious award at the recent SME100 Awards. RAM was awarded the SME100 Award for Fast Moving Companies in Singapore. This is a proud achievement that belonged to everyone. It would have been impossible without the support of our staff, partners and customers.

New Developments

As a forward looking company, we continue to keep a close watch on market trends in the container handling and bulk handling industry, exploring relevant opportunities. I am glad to share that our research and development efforts have been fruitful, and in the coming months, we will be launching new products, which will provide customers with an even bigger choice of machines to suit their needs. In particular, you can look forward to next generation PinSmart[™] Automated Twistlock Handling.

This is an exciting time for us as a company. We are achieving many great breakthroughs. But we are mindful that these are only possible with continued help and support from you – our customers and friends. Thank you and we look forward to another great year with you in 2018.



Dear Friends,

It is with great pleasure that I welcome you back to RAM Spreaders News. Things have been hectic since the last edition. We deepened our relationship with key accounts, expanded our geographical footprint, scored an award and are in the process of working on new product launches.

By Philip Lee,

Chief Executive Officer

Delivering Value to Customers

It is always heartening to hear how our systems solve business challenges and increase productivity for our customers. Hence, you can imagine our excitement when we hear about the excellent feedback Transnet Port Terminals received from their customers following their introduction of the Containerised Bulk Handling system, using our RAM Revolver rotating spreader and broke loading rate records for the port.

Another customer in Latvia, Riga Universal Terminals, also saw an improvement in their biomass productivity with the implementation of the RAM Revolver Containerised Bulk Handling System. Being the very first RAM Revolver operating in Europe, this achievement is especially significant. *See article on page 8.*

Tilting Spreader





e have now launched a new spreader – Tilting Spreader. Designed for handling bulk, the Tilting Spreader can tip bulk materials from conventional general purpose (GP) containers via a trap-door or conventional doors. Unlike the RAM Revolver® which uses open top containers, the Tilting Spreader uses conventional GP containers. This development is consistent with the growing trend where empty containers returning to the port are filled with valuable bulk commodities and transported from the hinterland to the ports. With the Tilting Spreader, customers are now empowered to transport commodities, such as sugar beet, scrap metal and even barley.

This project, led by Frank van Laarhoven (pictured) from Europe, was developed in collaboration with crane OEM Liebherr for one of their customers on the

Caspian Sea and RAM design guru Krishna Murari who transformed the design from the drawing board into a working spreader.





Russia Georgia Armenia Azerbaijan Turkey Turkey Iraq Iran



SME100 Awards



Philip continued, "Recognition is the greatest motivator and this award will serve not just as a recognition of what we have achieved so far, but also a motivation for RAM Spreaders to aim higher and achieve greater heights in the future."

R AM Spreaders was officially recognised as a fast moving company at the recent SME100 Awards after several rounds of evaluations, including a financial audit and onsite inspection. RAM Spreaders was among top 30 winners for the category. The SME100 Awards recognises and honours some of the best and upcoming small and medium enterprises (SME) in Singapore for their contribution to the country's economy.

The Awards Ceremony that was held at a glittering dinner function at the Marina Bay Sands in Singapore saw SME Magazine group publisher and Editor-in-chief William Ng presenting the award to RAM Spreaders. Receiving the award Mr Philip Lee,

Chief Executive Officer of RAM Spreaders said **"Being** named as one of the SME100 winners this year is a great honour."





CONGRATULATIONS

SME100[™] Awards 2017 - Singapore's Fast Moving Companies





Customer News

Americas



North America

One of the few U.S. East Coast ports with a 50-foot draft that can handle 14,000 TEU super-post-Panamax vessels transiting the expanded Panama Canal, Ports America Chesapeake received four RAM 3550 all-electric telescopic single lift spreaders for its existing RTG's.

The RAM 3550 all-electric spreaders are not only capable of handling 20, 40 and 45 feet containers weighing up to 51 tons, they are also low in energy consumption and high in efficiency thanks to their all-electric drives and all-electric corner flippers. The reduction of diesel consumption has empowered a reduced carbon footprint for the Port of Baltimore and its local community.

This new addition adds to the six existing RAM RTG spreaders in operation at the Ports America Chesapeake's Seagirt Maritime Terminal.

Click on the image below to visit RAM Spreaders Vimeo Channel.



Еигоре



Spain

Boluda Corporación Maritima has acquired the RAM Model 2420 electro-hydraulic telescopic spreader for its terminal at Villagarcia de Arosa. Good for handling 20, 40 and 45 feet ISO containers with a load capacity of 40.5 tons, the spreader will be installed in a PACECO crane that is currently being remodelled.

The Villagarcia terminal is located at the bottom of the estuary of Arosa in the Atlantic façade of Galicia. This is a strategic base for Boluda and its traffic with Bilbao, Lisbon and the Canary Islands.

Latvia



Riga Universal Terminal in Latvia on the Baltic Sea took delivery of the RAM 4100 series Revolver[®] rotating spreader. Complementary to the Containerised Bulk Handling System (CBH) which is used with the Liebherr MHC crane to export biomass materials, the system is also environmentally friendly.

Since its introduction, the Containerised Bulk Handling system has quadrupled biomass productivity at the port, making it both a cost effective and environmentally sustainable bulk handling solution.

Click on the image above to see video of CBH operation.

Customer News

Middle East



Iran, Egypt, Oman and Saudi Arabia

RAM has recently made several big deliveries in the Middle East region. Notably, 18 units of STS crane spreaders and 16 units of all-electric spreaders for RTG cranes were delivered for a project in Iran. The customer shared positive feedback about the spreaders' rugged heavy-duty design and the RAM ShockAbsorb[™] system, which is known for recording the lowest mean time between failures in the market.

The last quarter also saw deliveries to projects in Egypt, Oman and Saudi Arabia.

Asia



Qingdao

The Port of Qingdao recently received the delivery of seven units of RAM model 3350 "SingFlex" Tandem Headblock Connection designed to be fitted to the ports existing single hoist quay cranes.

The flexible lifting configurations of "SingFlex" means that the fully automated port is now capable of achieving 5.2 million TEU, serving 24,000 container ships and handling four 20 feet or two 40 feet ISO containers.

Africa



Mombasa

We will soon see the delivery of a large order of RAM twinlift all-electric RMG crane spreaders to the port of Mombasa. These spreaders are the most technically advanced of their type in the world with features such as load sensing, auto greasing and all-electric end flippers.

Following RAM's success in West Africa, we also delivered two new spreaders to Ghana for use on their MHC cranes. In 2018, RAM will focus our efforts on strengthening presence in the region – with expected deliveries to Gabon, Angola and Ivory Coast.



See what our customers are saying about us on our webpage:

RAM IN THE NEWS

for all top news items, videos and case studies



Setting Landpin Switches

A dding to the success of previous "How To" videos posted on our Vimeo and YouTube channel, we have produced a new video, showing the step-by-step process to set the Landpin switches on RAM electrohydraulic spreaders.

The correct setting of the Landpin sensor is important as it acts as the electrical interlock to stop the twistlocks and deactivates the extend/retract feature of the spreader. Through this video, we aim to share with our customers and their trained engineers the best way to adjust and set the Landpin setting.







Our videos are also a great training aid during the RAM Product Training courses we deliver!

Watch some of our past videos here

How to replace the seals on a hydraulic actuator normally found on a RAM Spreaders hydraulic spreader





Minimize downtime Maximize productivity



with genuine RAM Spreaders Parts



SMAG Grab STS Solution



Adapted STS container cranes in Aarhus, handling building materials, which can quickly be returned to container handling.

C ontainer Ports and Terminals seeking new trade opportunities to boost revenue and drive traffic towards their terminals are now able to include bulk import as a means to increase business without the need to build expensive warehouses or stockpile areas. The implementation of the special PEINER grab in a recent project at the Port of Aarhus saw an increase in efficiency and productivity.

PEINER SMAG Lifting Technologies (PSLT) in Germany has recently produced a specific grab that can be operated with an existing container crane, allowing standard container terminals to import bulk commodities without any modifications to their existing cranes. Stockpiling of bulk or the building of expensive warehouses is not necessary as the grab loads the bulk into special open top containers which are then sealed with a lid to protect it from contamination and the environment. The containers can be transported either by road or rail and can be stacked at the quayside in preparation for their onward journey.

SMAG Group Locations



An Untapped Opportunity Limited by Existing Grabs

This is unique as most of the proven grabs do not have the necessary hoisting gear/winches and cannot be used on standard container cranes. In addition, mechanical two-rope or four-rope grabs cannot be used on a standard crane. Seeing this gap in the market and the huge potential for existing container terminals to begin importing bulk, PEINER SMAG set about designing a large volume single rope radio controlled grab.



The SMAG grab unloads the ship into container and the RAM Revolver unloads the bulk at destination. Simple and no dust!

Benefits of the SMAG Grab STS Solution

The low energy consumption from the use of mechanical grab, and no loss of commodity and need for clean up during the import process from the sealed containerisation of the commodity makes this a clean, safe and cost effective way to import bulk at any standard container terminal.

Jens Hvidegaard Dissing, Project Manager at Port of Aarhus commented, "Bulk material handling is essential to the success of ports. Our goal was to have an intelligent solution for our container cranes, with significant better efficiency in terms of speed and handling volume.

"We had an idea, and we found the right product – a PEINER radio controlled single-rope grab that combines all the required features, together with additional benefits to meet today's material handling challenges in the port of Aarhus."



Riga Universal Terminal Quadruples Biomass Productivity



ncreasing awareness in environment preservation has given rise to a strong demand for renewable energy sources and growth in Biomass exports. Driven by the market situation, Riga Universal Terminals (RUT) had begun to handle biomass pellets and wood chips. However, it was looking for innovative ways to cope with the demand while staying cost competitive for their clients.

After extensive research, RUT's management was drawn to the Containerised Bulk Handling (CBH) system. This particular system allows the commodity to be directly loaded into containers and tipped into the ships hold with rotating spreader RAM Revolver[®] attached to a Liebherr mobile harbour crane.



RUT's Evolution

Started in 2001, RUT is located just outside the city centre of Riga, Latvia. It rapidly developed to become one of the top terminals in the port of Riga. This led to its acquisition by an international port operator – Portek Group, Singapore – in 2013. Under the new management, the port added to its portfolio different kinds of cargo, including containers, break-bulk, timber and various types of bulk materials.

With rising demand for renewable energy sources in the recent years, RUT began handling biomass products such as sunflower

pellets, wood pellets and wood chips. The continued volume expansion in these products called for RUT to look at more efficient high capacity loading systems to support growth.



CBH as a Possible Material Handling Solution

When exploring the different options, RUT considered buying a new material handler costing approximately 1.3 million euros, and the possibility of selling an existing Liebherr mobile harbour cranes and buying a bigger and more expensive crane. Ricky Yong, Chief Executive Officer of RUT shared, "But both options would have meant a huge investment without getting a meaningful profit in return."





Riga Universal Terminal Quadruples Biomass Productivity (continued)

With the support of their Liebherr service partner, Alfis Ltd., and the sales agency, Intersafe Marine AB, RUT was introduced to the RAM Revolver[®]. Containerised Bulk Handling with the revolver allows for high capacity loading of up to 45 tons per cycle and 30 cycles per hour, using the existing Liebherr MHC and skilled operators.

This means, a small investment in crane attachment would allow RUT to increase loading rates and achieve a higher annual tonnage – become more profitable.

Facts about revolver loading rates:



CBH in Operation

When the RAM Revolver[®] and purpose-built high capacity containers were delivered in January, RUT immediately saw a difference. RUT compared handling speed between a material handler and a RAM Revolver[®] by measuring the time it takes to load the vessels with wood chips. It was found that the material handler had a maximum capacity of handling 200 tons per hour while the RAM Revolver[®] attained 800 tons per hour on its first usage with room for improvement in subsequent applications. Kaspars Buris, Technical Support Manager of RUT, enthused, "We would never have expected a 100% increase in productivity! We are very satisfied!"

Beyond which, loading bulk with RAM Revolver® is revolutionary because of little material loss and pollution. Using containers which can be enclosed with a lid, the system minimises any material loss. In addition, its gentle tipping of the hatch ensures minimum dust generation.

RUT is proud and happy to operate the innovative CBH system and looks forward to welcoming guests from other ports and companies to show them the fast and easy operation of their new RAM Revolver[®].

Even though the RAM Revolver® is widely used in bulk handling in Australia and South America, RUT is the first to be using it in Europe.

"The first of its kind in Europe, the CBH system is the world's best practice for the environment. And as we see in the case of Riga, it can increase productivity as well."

– Cameron Hay, RAM Spreaders





Babuchandran Balakrishnan

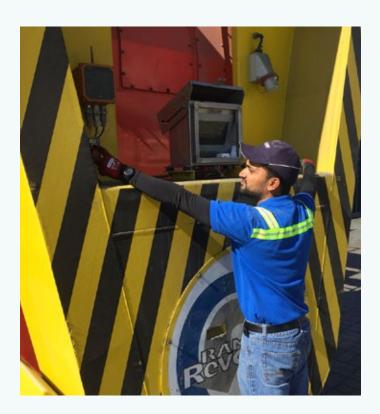
Senior Technical Engineer & Sales Support

B abuchandran Balakrishnan is responsible for the RAM Spreaders equipment aftersales services in the Middle East and North Africa regions.

Apart from commissioning RAM spreader equipment, Bala also coordinates and delivers on-site technical training to port engineers, ensuring RAM customers receive the best level of service and support available.

Bala joined RAM in 2014 as a customer relationship officer in the Middle East and North African region. Having graduated as a Mechanical Engineer in 2009, he first joined JCB Excavators Limited as a service engineer before joining DPW India as a mechanical engineer subsequently. Prior to joining RAM, he worked for Konecranes and brings with him a wealth of experience in the port sector.

Bala recently commissioned a RAM Revolver® on a Reach Stacker in Bakir, Turkey.



"I enjoy solving customer problems. In the Middle East region, this requires me to be very flexible. Having the same background as my customers and years of experience fixing the same problems in a terminal, makes a big difference." – Babuchandran Balakrishnan

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Performance Through Innovation