

KONECRANES®

LIFT TRUCKS QUARTERLY

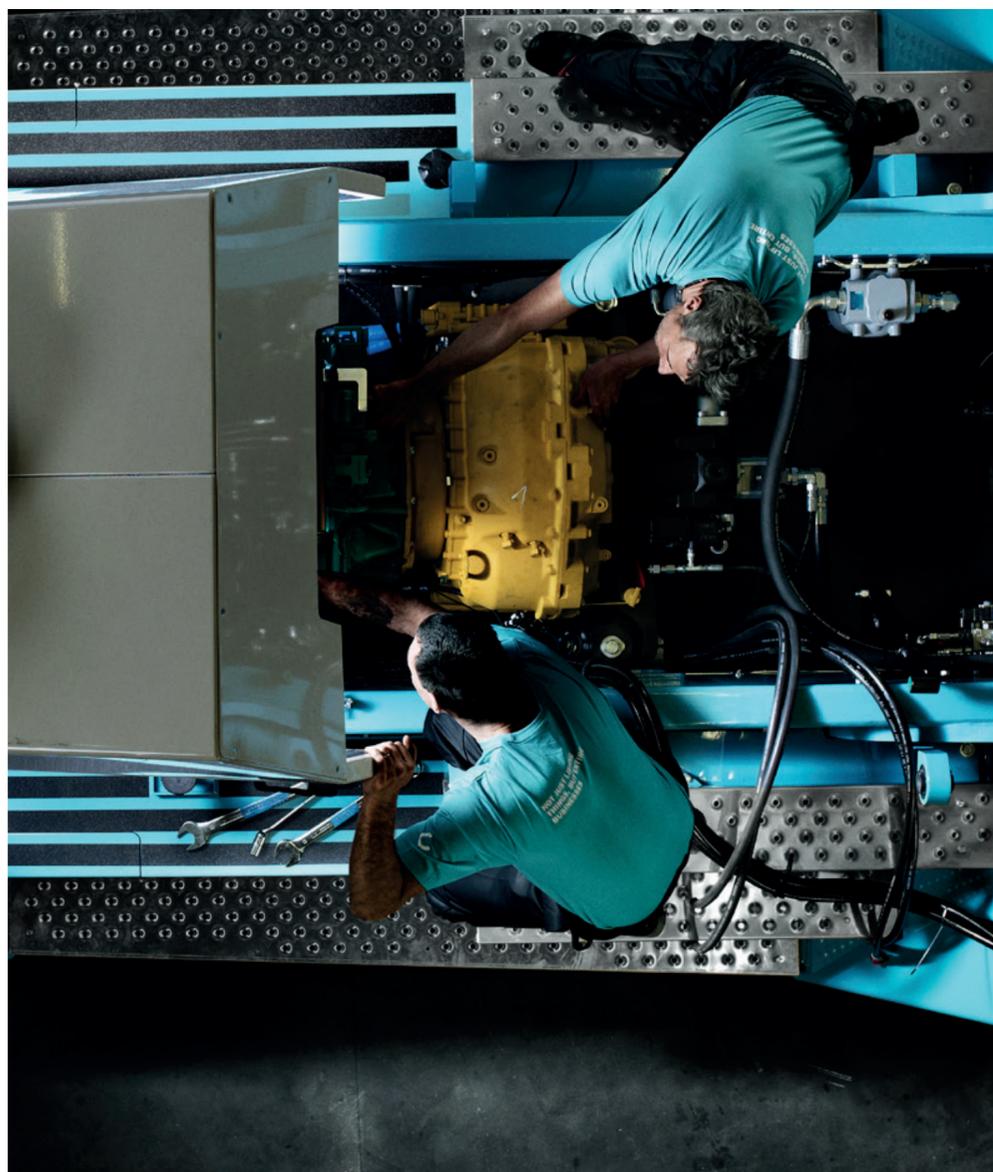
April 2018



- Spare Parts Enhancing Safety and Highest Lifecycle Value
- 60 Seconds with... Håkan Andersson, Product Manager, Konecranes Lift Trucks

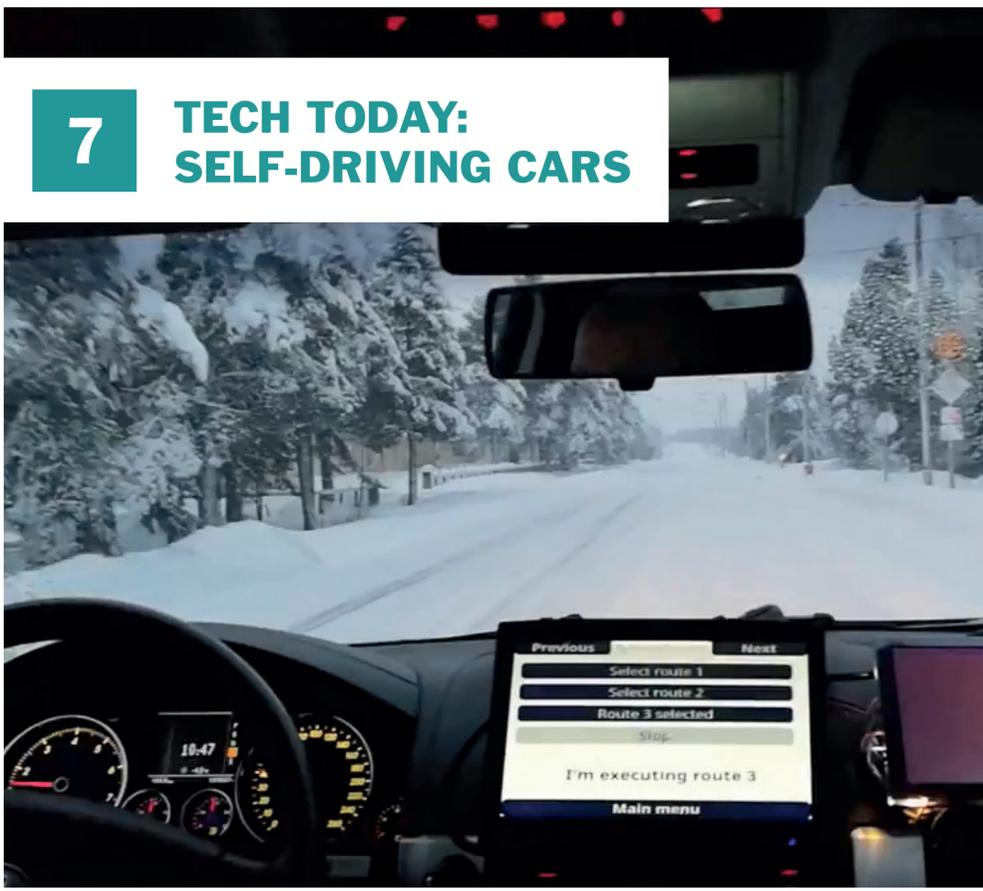
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MACROECONOMIC TRENDS

PROLONGED PERIOD OF SLOW GLOBAL GROWTH AMID SIGNIFICANT UNCERTAINTIES

→ REAL GDP GROWTH
Q4 GDP went up in France, USA, Germany and India, went down in Finland, Japan, UK and the Eurozone, remained the same in China.

↘ CURRENCIES
In February, EUR appreciated against major currencies, depreciated against GBP, JPY, CNY.

↗ POLICY INTEREST RATES
In February, policy interest rates remained unchanged for major economies, went down in Russia.

↗ INDUSTRIAL PRODUCTION
Industrial production levels have gone up year-on-year in most economies.

↗ CAPACITY UTILIZATION
Capacity utilization went up in the EU, remained the same in USA.

↘ PURCHASING MANAGERS INDEX
PMI went down in most economies. Went up in Brazil, China, USA and Spain.

↗ INFLATION
Inflation went up in Japan, down in most economies, remained the same in USA & Brazil.



KEEP READING



HOWE ROBINSON CONTAINER INDEX AND BALTIC DRY BULK

CONTAINER SHIPPING STRUGGLES WITH OVERCAPACITY, INABILITY TO DELIVER VALUE

In its latest report, McKinsey estimates liner shipping has destroyed more than USD 100 billion in shareholder value over the last 20 years.

Overcapacity is the key reason for poor performance, and unfortunately, it is here to stay. The current supply and container capacity afloat is about 20% greater than demand.

Slowing economic growth is making the situation worse.

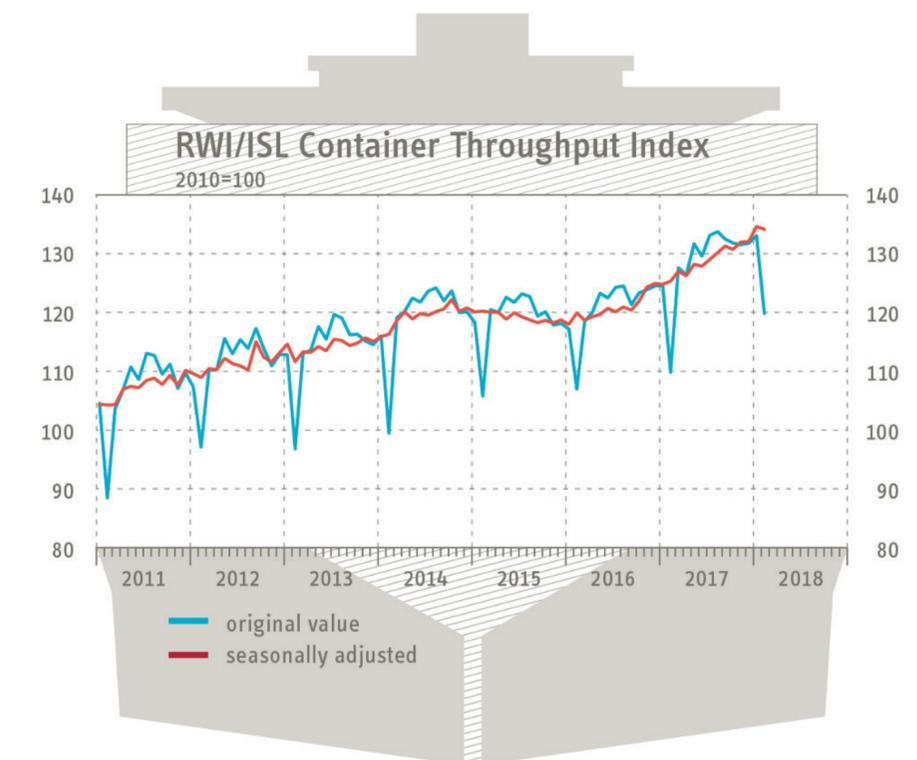
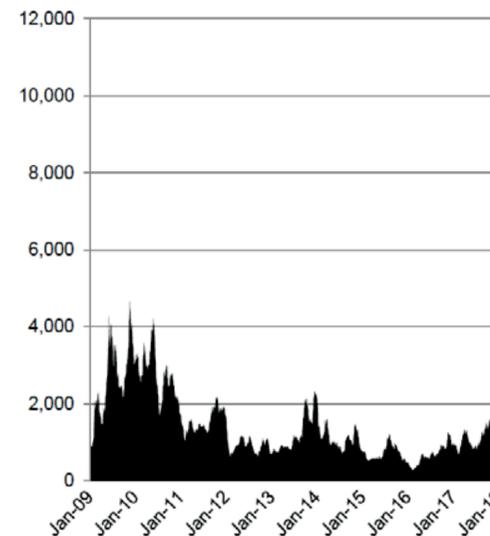
Projections show a large gap between supply and demand continuing for several years, closing only early in the 2020s.

The industry is experiencing unprecedented consolidation as it responds to the negative environment, but there are still plenty more mergers to come.

Current industry concentration - where the top three container shipping players control 47% as of July 2017 – is still below the level typically correlated with higher returns.

Sources: Splash 24/7, 12 February 2018; McKinsey, February 2018

Baltic Dry Index





GLOBAL SECTOR SUMMARY

WHAT IS THE LATEST NEWS IN GENERAL MANUFACTURING, MINING AND PORTS? READ MORE ABOUT THE FORECASTS FOR DIFFERENT INDUSTRIES.



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AUTOMOTIVE 

GENERAL MANUFACTURING 

INTERMODAL & RAIL 

MINING 

OIL AND GAS 

PULP & PAPER 

PORTS 

POWER 

STEEL 



AUTOMOTIVE

3D MAPPING MAJOR CHALLENGE TO ROLLOUT OF AUTONOMOUS CARS

For the self-driving car, one of the most important issues is what it knows about the area it is travelling through in advance. Robot-driven cars need a three dimensional, representation of the environment around them, accurate to the centimeter. A self-driving car collects more than a terabyte of data a day. The cumbersome storage of data, the need for constant updates and the fragmentation of the sector are putting a brake on the highly-complex 3D maps that are necessary. The possibility of a regulatory backlash adds to the technical issue. HD map makers will have to deal with privacy concerns. Even so the broader tech sector is excited about potential spin-offs from 3D mapping, as it could enable other technologies.

(Source: Financial Times, 21 February 2018)



GENERAL MANUFACTURING

DIGITAL TECH MIGHT HELP ASEAN UNLOCK UP TO USD 627 BILLION IN PRODUCTIVITY

Disruptive digital technologies could help Southeast Asian countries become true “factories to the world”, generating up to USD 627 billion worth of productivity gains, a new report by McKinsey says. Of the 200-plus respondents, almost all (96%) believe Industry 4.0 will bring new business models to their industries and slightly less (90%) say improved performance will be one of the main benefits from these new technologies. Embracing Industry 4.0 requires a clear understanding of the obstacles, a shared vision of the potential benefits, and a policy & education environment that encourages implementation.

(Sources: Nikkei Asian Review, 21 February 2018; McKinsey, February 2018)

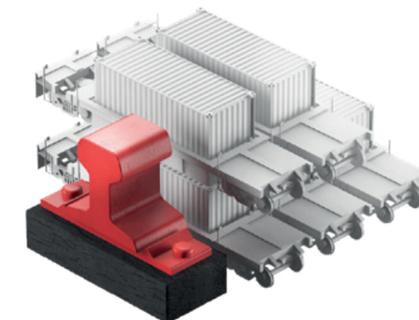


INTERMODAL AND RAIL

BULLET TRAINS TRANSFORM CHINESE NEW YEAR MASSIVE MIGRATION

While the advent of cut-price flights has dimmed the appeal of rail travel in other parts of the world, in China it’s on the rise. Millions of Chinese cram onto trains to make the annual pilgrimage home for the Lunar New Year holiday. On the last Spring Festival, more people took bullet trains than conventional ones than ever before. Rare in China only a decade ago, high-speed rail has grown very rapidly with more than half of the 25,000km network built between 2013 and 2017. The plan is to expand it by more than 50% by 2025, with eight main bullet train lines running from east to west by 2030. China intends to have another eight lines running from north to south as well.

(Sources: Bloomberg, 12 February 2018; Forbes, 13 February 2018)





MINING

CANADA TOP MINING DESTINATION WORLDWIDE, FINLAND MOST ATTRACTIVE JURISDICTION

Canada is the world's best region for mining investment, according to the latest annual global survey. The survey was sent to about 2,700 mining-related companies around the world. The companies that participated reported exploration spending of USD 2.3 billion in 2017 and USD 1.9 billion in 2016. In terms of jurisdictions, Finland moved up to first from fifth place in 2016. Saskatchewan (a Canadian province) dropped into second place. Nevada moved up from fourth in 2016, to third in 2017. The Republic of Ireland ranked fourth, and Western Australia dropped from third in 2016, to fifth in 2017. Rounding out the top 10 are Quebec, Ontario, Chile, Arizona, and Alaska.

(Sources: MINING.com, 22 February 2018; The Fraser Institute, 22 February 2018)



OIL AND GAS

LOWER OIL PRICES FORCE SAUDIS TO WIDEN THEIR CIRCLE OF FRIENDS

The changing nature of the energy industry has transformed the global geopolitical situation. While Saudi Arabia is still a major energy producer, it must compensate for revenue lost through falling oil prices. The USA, China and Russia are all hoping for a financial advantage. Russia is being friendly with Saudi Arabia for energy deals, despite their rivalry in Syria. China seeks a stable flow of Saudi oil and Saudi investment in its growing petrochemical and refinery industries. And Washington hopes that Saudi Arabia will continue to be a strategic bulwark against Iran. The desires of all three of these superpowers fit neatly into Saudi Arabia's strategy to find new investment partners.

(Source: The New York Times, 25 February 2018)



PULP AND PAPER

PAPER AND BOARD PRODUCTION UP 1.5% IN CEPI COUNTRIES IN 2017, HIGHEST RISE SINCE 2010

The production of paper and board in the member countries of CEPI increased by 1.5% in 2017, the biggest growth in the last eight years. Total production was around 92.3 million tons. Overall paper and board consumption increased by 0.5%. This is the fourth year of growth, thanks to a favorable economic environment in the EU and strong global growth and trade. Pulp production increased by 2.2%, with a total output of approximately 38.1 million tons. Mechanical pulp output increased by 0.8% and production of chemical pulp increased by 2.7%. The output of market pulp increased by 5.3%, because of substantial investments in new production capacities.

(Source: CEPI, 7 February 2018)



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PORTS

CONTAINERS TO DRIVE PORT TRAFFIC GROWTH IN INDIA OVER THE NEXT 5 YEARS

CRISIL Research expects port traffic in India to log a compound annual growth rate of 3–5% in the five years through fiscal 2022, a notch down from 4.4% in the last five years. This change would be mainly due to coal. In the last five years, port traffic growth has been led by a surge in coal imports. Coal traffic is expected to remain stable as an increase in coastal traffic due to increased production is offset by a corresponding fall in imports. In contrast, container traffic growth is estimated to cruise at 6-8%, riding on improvement in export-import trade in sectors including chemicals and automotive/ ancillaries. Indian ports are expected to see capacity additions of 325–375MT.

(Source: CRISIL Research, 26 February 2018)



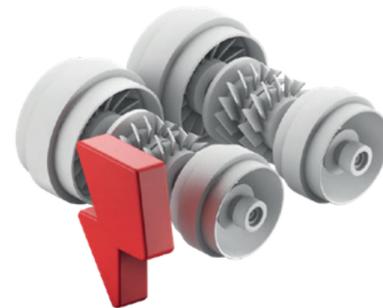
POWER

WASTE-TO-ENERGY: Waste to energy, anaerobic digestion and biogas are showing slow growth. In 2017, the US installed 122MW of biomass, 54MW of biogas, and no new waste-to-energy plants. Since 2015, has been almost no new financing for waste to energy and biogas projects.

FOSSIL FUELS: Work on Europe's planned gas-fired power projects is likely to accelerate after 2020, as many EU countries step up efforts to retire nuclear, lignite and hard coal-fired generation.

WIND POWER: In 2017, the addition of 52.5GW took the total capacity of installed wind turbines to 539GW globally the end of December. However, WWEA points out that the 2017 annual growth rate of 10.8% is the lowest since the industrial deployment of wind turbines started.

(Sources: BNEF; Waste Dive; Gas to Power Journal; Pei; WWEA)



STEEL

USA TO IMPOSE 25% TARIFF ON STEEL, 10% ON ALUMINUM IMPORTS

The USA will order tariffs of 25% on steel imports and 10% on aluminum imports, and these new duties will be in place long-term. There is a global glut of both metals, largely driven by an enormous expansion of China's production capacity since the early 2000s. If NAFTA continues in something like its current form, manufacturers could avoid the new tariffs by shifting production to Canada or Mexico, from where they can export their final goods to the USA tariff-free. Beyond American borders, the policy will be disastrous. Among those likely to be hardest hit are some of its closest allies. Several countries are planning to sue the USA in the WTO.

(Sources: Platts, 1 March 2018; The Economist, 2 March 2018) ■





SPARE PARTS ENHANCING SAFETY AND HIGHEST LIFECYCLE VALUE

In the world of impressive heavy-duty lift trucks, it's easy to forget that your machines need regular service and maintenance to guarantee you safety and the lowest total cost of ownership.



KEEP READING



MAINTAINING AND ENHANCING SAFETY

Every lift truck that leaves our factories goes through hard safety tests with zero tolerance for any kind of safety issues. Depending on your specific operating environment and applications, extra safety features and options can be retrofitted.

Today, most Konecranes Lift Trucks are Smart Connected Lift Trucks using the TRUCONNECT® platform. By mounting different sensors on strategically chosen places on your lift truck, critical safety matters can be carefully monitored, either in the cabin by the driver, or remotely by the fleet manager. Such matters include tire pressure for stability or shock distribution to prevent wear and tear.

GEOFENCING TO SET UP SAFETY ALERTS

When your lift truck is connected by TRUCONNECT, you can also use location-based services like Konecranes WORK ZONE. This lets you utilize geofencing to set up safety alerts, speed limitations and user-defined alerts.

You can also retrofit cameras as an additional safety feature for the driver. Konecranes Spare Parts always has a wide range of cameras stock. All of them can feed into the standard MD4 in-cabin display.

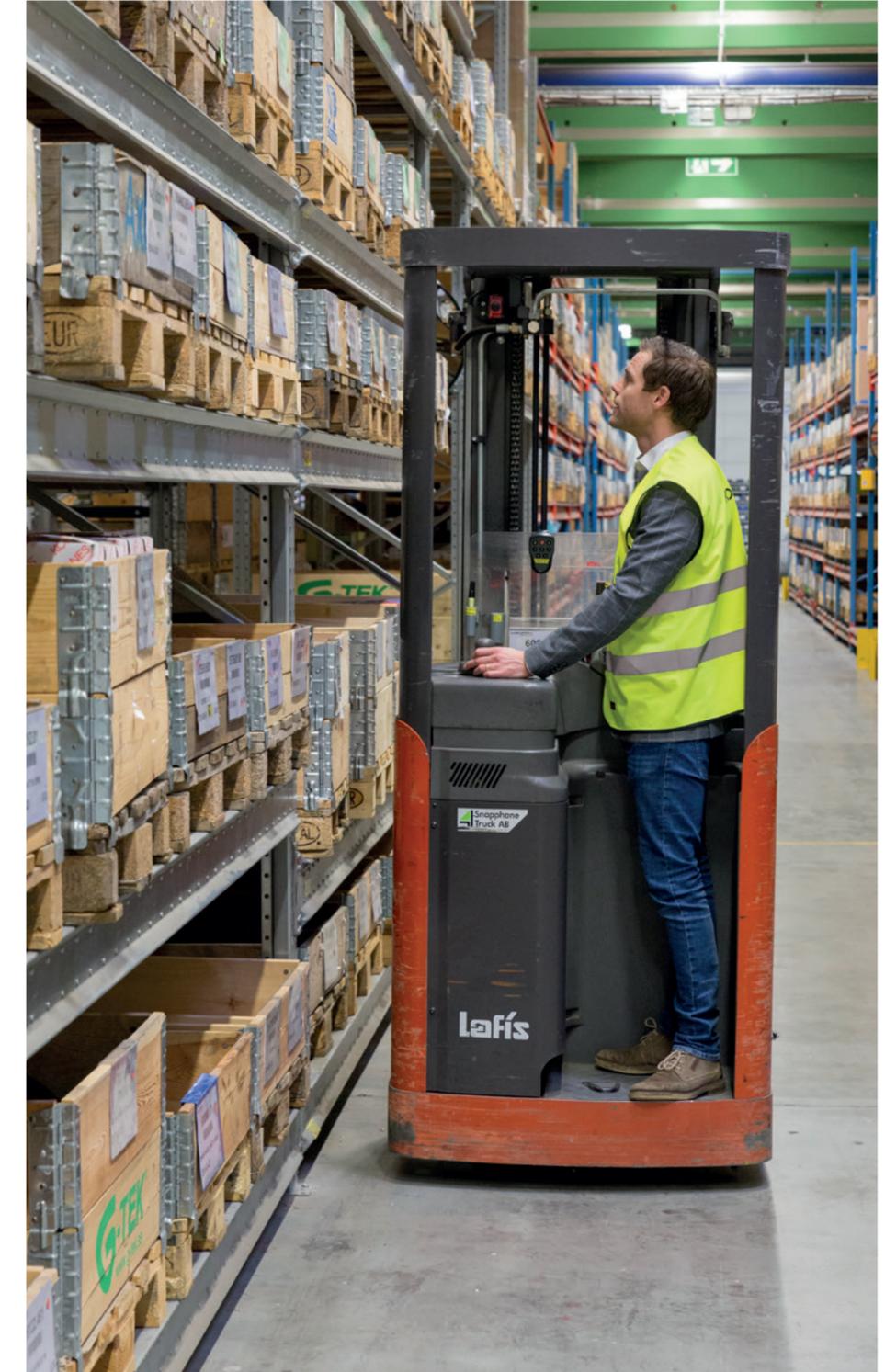
LIGHTS AS A SAFETY FEATURE

More traditional after-sale products are also in demand by our customers and can significantly improve the safety of your lift trucks. It's easy to mount many kinds of extra working lights onto a lift truck. So if the conditions around a lift truck change – such as when you move it to another area of operations – you can also easily change the working lights as necessary.

Bluespots is another way you can use lights as a safety feature. You have a blue spotlight fitted to either the front or back of your lift truck. This puts a blue spot on ground, close to your machine. This is very useful in noisy environments, where the blue spot on the ground indicates that there is a lift truck coming.

Fire suppressing systems are one of our best-selling safety products. We have carefully chosen the most ideal from the world's leading supplier.

“Fire suppressors can be fitted on any lift truck, not only on Konecranes machines,” says Konecranes Lift Trucks Spare Parts Manager **Johan Kårhammer**. “All such systems are fitted by licensed professionals to ensure maximum safety for everyone.”



CAREFULLY CHOSEN PARTS

Every machine from Konecranes is unique, even if the average person thinks some of them look identical. Each lift truck has its own special parts catalog, which lists all of its parts, including the extra options you have chosen for that particular machine.

All Konecranes equipment is the sum of carefully chosen parts. Every part, big or small, needs to interact perfectly with the others. In many cases, if one part is changed, other parts need to be changed as well, so that it all works together in the most efficient way. When this happens, we update the catalogs accordingly.

Johan continues: “Other parts providers might have the same parts, but our unique machine catalogs ensure that all the right parts will come together to harmonize and interact perfectly. This also makes it easy for us to keep the right parts available in stock, to maximize your uptime, wherever in the world you might be.”

KEEP READING



“We strive to be fast, reliable and easy to deal with.”, says Spare Parts Manager, Johan Kårhammer



SPARE PARTS OPERATIONS

We run our spare parts distribution from the Konecranes Spare Parts Center in Markaryd, Sweden, which supports all of our spare parts hubs across Europe, the United States, the Middle East, and Asia.

The majority of our spare parts orders are same-day deliveries. Very few are stock orders. To deal with this kind of unpredictable demand efficiently, we need to be fast and flexible.

“We can always become better than we are today,” Johan says. “We all need to think the same way in our day-to-day environment during the whole delivery process, from order, through procurement, warehousing and forwarding. Every day, we top up our inventories and work to keep pricing and availability as good as possible.”

Dealing with spare parts is mostly about pricing and availability. We have invested a lot in spare parts during the last few years and one key area is

maintaining stock levels. Keeping the right parts in the right amounts in stock at all times is very important especially since we can’t anticipate precisely what parts we will need, and stock might be depleted from one day to the next.

“We are working hard on stock levels and lead times, and we have drastically improved our delivery times,” says Johan.

He stresses the importance of customer service in supplying spare parts.

“We strive to be fast, reliable and easy to deal with. We want to provide good support to our customers and keep them informed.” ■

GENUINE KONECRANES SPARE PARTS – HIGHEST LIFECYCLE VALUE

- Our genuine spare parts stand the high Konecranes reliability and quality that minimize costs long-term.
- Our spare parts are the same parts that we use to build our equipment, and so they give the same performance.
- Genuine Konecranes parts give you the optimal performance you expect from a world leader in load handling solutions.
- We take quality seriously. If something has been changed, we make sure that the new solution is at least the same or better in quality than what you had before the change.

Do you need to replace some parts or want a service kit to service your own equipment, or would you like a retrofit kit to upgrade your lift trucks?

CONTACT US



60 SECONDS WITH

**HÅKAN
ANDERSSON
PRODUCT MANAGER,
KONECRANES LIFT TRUCKS**

YOU JUST JOINED KONECRANES LIFT TRUCKS AS PRODUCT MANAGER. TELL US A LITTLE ABOUT YOURSELF.

My background is in the product management of trucks and packaging machinery. But most of my career has been in equipment for mobile networks, first as sales manager and then as product manager. I have always liked product management very much, since it covers a wide range of challenges in both business and engineering. And you get to meet so many nice people.

IN THE BUSINESS OF HEAVY LIFT TRUCKS, HOW DO YOU SEE THE ROLE OF THE PRODUCT MANAGER?

The product manager makes sure that the cooperation between sales, product design and supply is efficient. In heavy lift trucks, I think this will become more and more important, since competition is getting tougher. It is good to know some key customers to understand

the market, and it's also important to understand our capabilities within R&D and production.

WHAT ARE THE BIGGEST CHALLENGES FOR A PRODUCT MANAGER?

Well, good product management is a complex task. But a simple way of expressing it would be to say that the product manager should help us develop what we can sell, and sell what we have developed. The biggest challenge in that is probably to find ways to get ahead of the competition.

HOW DO YOU SEE THE FUTURE OF HEAVY LIFT TRUCKS? WHAT DO YOU THINK WILL CHANGE DURING THE NEXT FEW YEARS?

I think our slogan "Smarter where it matters" is very forward-looking. It covers the obvious developments within fuel efficiency and smarter drive lines, where we have started working and released our first products. But it also

covers the more futuristic concepts of remote control and automation that customers are already curious about. Imagine how that could change the way we design heavy lift trucks! It's also important that some things remain unchanged, like our ability to listen to customers and adapt our products to their specific needs.

WHAT IS YOUR PERFECT DAY OFF WORK?

I enjoy outdoor sports around the year. So, on a perfect day, I would probably be chasing my teenagers down a sunny ski slope with a little bit of powder snow blowing in my face. Or do some good kayaking on a peaceful lake. At the end of such a day, a good, long dinner with family and friends is always nice.

TECH TODAY

SELF-DRIVING CAR CHALLENGING SNOW AND ICE

Self-driving cars can already cruise fairly comfortably in sunny, dry conditions. However, some operators have been testing self-driving cars in winter weather during recent years. Researchers at Finland's Technical Research Centre (VTT) say that they have now made their first safe drive of a fully autonomous vehicle on a snow-covered public road.

A robot car, Martti, managed to safely navigate the snowy terrain, even at its top speed of 40km/h, or 25mph, in wintry conditions on a 10km stretch of public road in Muonio, Finnish Lapland.

Martti has been specifically developed for challenging weather conditions. He's a Volkswagen Touareg retrofitted with thermal and stereo cameras, short-range radars, GPS/Glonass receivers, a rear-mounted Lidar scanner, three forward-facing lasers and inertia units for determining direction and acceleration.

The software and algorithms guiding the components were developed by VTT.

In the next phase of development, VTT plans to change the wavelengths of the optical components, increase

the resolution of the radars and beef up the software's sensor monitoring capabilities to ensure Martti can handle varying degrees of slippery roads and limited visibility.

VTT researchers believe that advanced automated features on cars will become increasingly common in the next few years, but it will take 30 to 40 years for all traffic to become fully automated.

[WATCH VIDEO](#)

EVENT CALENDAR



BREAKBULK EUROPE

29–31 May

Bremen, Germany
Stand 1269

[READ MORE](#)

TOC EUROPE

12–14 June

Rotterdam, Netherlands
Stand B10

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If you have questions about Lift Trucks or about this newsletter, please contact us:
communication.liftrucks@konecranes.com

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MEET US AT BREAKBULK EUROPE

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