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SCANIA

A MAGAZINE FROM SCANIA ENGINES

POWER



EQUIPPED FOR THE CHALLENGE

Two new Scania-powered Doosan dump trucks unveiled at Bauma



“Sustainability and connectivity will be prominent trends in 2019.”

NO RESTING ON OUR LAURELS

Welcome to the first *Scania Power* of 2019. Scania Engines had a great 2018, but we're not resting on our laurels.

This year we are continuing to roll out engine connectivity. By connecting each customer's engine, we can obtain user data that helps us provide even more tailored services. Our OEMs place high demands on their machines, and uptime and reliability are crucial, as they are for Scania. As you'll read, connectivity also allows us to be proactive and solve issues quicker if things go wrong.

Speaking of OEMs, we feature the work in Norway of our partner Doosan. Scania has long focused on large OEM partnerships worldwide. This helps us understand the market and puts a healthy pressure on us to be the best possible partner to OEMs.

The Bauma trade fair is upon us, and we look forward to seeing new trends in construction, including electrification and alternative fuels, plus OEMs' Stage V equipment, much of which features our engines. Beyond Bauma, China's efforts to cut emissions and promote sustainability and connectivity will be prominent trends in 2019. And Scania will be ready to respond.

Enjoy reading this issue of *Scania Power*!

Fredrik Järild

VICE PRESIDENT SALES, SCANIA ENGINES

Scania Power

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SCANIA

Scania is one of the world's leading manufacturers of trucks, buses and engines for heavy transport, as well as for industrial, marine and power generation applications.

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Cover photo

Per Olav Tverfjell

THE ENGINE

EdiLog chose a 13-litre Stage IV-compliant Scania engine because of its torque curve and Scania's attentive customer service.



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THE FORKLIFT OF THE FUTURE

SUNDSVALL, SWEDEN, 22 NOVEMBER 2018, 4 PM

Efforts to cut CO₂ emissions are influencing every type of vehicle design, even forklift trucks! At a pulp mill near Sundsvall on Sweden's northern coast, enterprising company EdiLog is taking wood handling into the future, with an electric hybrid forklift that realises fuel savings of up to 28 percent and can cut CO₂ emissions by 125 tonnes per machine annually.

The EdiLog forklift was the brainchild of Kjell-Arne Engberg, the owner of mill transport contractor Engbergs Transportsystem. The machine is ideal for paper, pulp mills and larger sawmills. After about half the life of the steel structure, the components can be replaced and service life extended at reduced cost.

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741

Scania is supplying 741 Euro 6 gas buses to TransMilenio in Bogotá, Colombia.



WANNA MEET?

HERE'S A SELECTION of the trade fairs and exhibitions where Scania will showcase its solutions for power generation and marine and industrial applications in 2019.

- **8–14 April 2019**
Bauma, Munich, Germany
- **21–23 April 2019**
G-Power, Shanghai, China
- **10–13 June 2019**
Seawork International, Southampton, UK
- **4–7 September 2019**
BICES, Beijing, China
- **8–11 October 2019**
Interairport, Munich, Germany
- **22–25 October 2019**
Kormarine, Busan, South Korea



ACQUA CON GAS

ITALIAN MINERAL water producer Gruppo Sanpellegrino is now running all its product shuttle transports on liquefied natural gas (LNG). The company is using Scania R 410 LNG trucks to deliver mineral water from the bottling plant to its logistics centre, a 35-kilometre journey. Last year, Gruppo Sanpellegrino produced 1.5 billion bottles of mineral water, exporting to more than 150 countries. The switch to LNG underlines the company's commitment to more sustainable operations.

A WHALE OF A TIME

SEATTLE-BASED whale-watching company Puget Sound Express recently took delivery of *The Saratoga*. Built by All American Marine, this amazing 54-tonne vessel has four Scania 16-litre engines (900 hp), giving it 2,300 r/min with Hamilton 364 waterjets and a top speed of 46 knots. The boat, which can carry 149 passengers, was launched in June 2018. It's a source of great pride for Puget Sound Express, All American Marine, Cascade Engine Center, the local Scania distributor and Scania.



MAXIMISING OILFIELD UPTIME

TEXAS-BASED AQUACORE Rental Company, part of the Orteq group, provides centrifugal water transfer pumps to US oilfields. Drilling for oil is a tough process, and pumps are vital for removing excess water and keeping the extraction process going. Aquacore's equipment is fitted with Scania DC13 550HP continuous-duty engines, supplied by Scania distributor Loftin Equipment Co. Oil companies can maximise their uptime with a non-DPF, Tier 4F/CARB engine, which does not require a regeneration cycle.



3 QUESTIONS

Katia Wedberg
Project Manager, Projects and Events, Scania

What can we expect from this year's Bauma trade fair (8–14 April)?

This year's Bauma is the 32nd edition of the world's leading trade fair for construction vehicles, construction equipment and mining machines. It is an outstanding show-

case for Scania's comprehensive customer offering within these industries. The last Bauma in 2016 attracted around 580,000 visitors from 200 countries. It is the ideal platform for exhibitors and professional visitors to initiate business and conclude contracts.

Who goes to Bauma?

Bauma attracts international truck and equipment manufacturers and showcases vehicles, equipment and support systems. It is open to both trade visitors and the public. The main target groups for Scania at Bauma are prospective customers, customers (incl. OEMs), end users, and drivers/operators within the construction and mining industries.

What should those coming to the Scania stand expect to see?

Scania will display a total of five construction trucks as well as a gas-powered mixer, two sturdy XT vehicles and a heavy haulage tractor, all with a strong package of associated services. Outdoors we will present our extensive offering for mining customers, including an XT heavy tipper and our smart support for mining customers. We are also displaying connected EU Stage V-compliant engines for equipment, vehicles and vessels that facilitate fleet monitoring and optimised uptime. And last but certainly not least we'll also be celebrating 50 years of the V8 engine!

TOGETHER IN ELECTRIC DREAMS

Great things are happening with the fast-emerging technology of electric power, says Mattias Rosengren, Lead Engineer, Electrification.

text PETRA LODÉN photo BEATRICE GRAALHEIM

When Scania Power speaks with Mattias Rosengren, it's only his second day on the job. He started as Lead Engineer, Electrification, in September 2018, but almost immediately went on paternal leave for two months after the birth of his fourth child. Now back at his desk, he is eager to start developing electrification technologies for Scania customers. It's an exciting time. "The changes in electric drivelines are coming quickly – faster than maybe many people believe," he says.

Primarily, Rosengren will explain to customers that Scania can deliver whole systems, not just the engine. "As an automotive OEM, we are strong in system integration, getting various components working together as a system," he says. "This experience is comforting for customers who are looking for a system supplier, while others prefer a component supplier relationship."

Rosengren's job will see him cooperate closely with marketing colleagues. "This makes us quite fleet-footed," he says. "We can capture trends and respond quickly to what customers want."

Rosengren has worked in the car industry, and he says that this sector has led the development of electrification, making the different components cheaper and better. Electrification is now featuring strongly in all areas where Scania is active, such as excavators, cranes and ships. Rosengren's first project is to rebuild a ship that plies the Stockholm archipelago, changing its engine power from diesel to an advanced hybrid in which a complete boat driveline can go on electricity. He explains that it's a different challenge.

"Electrifying a ship is different from automotive [electrification] because weight or space is not as critical," he says. "But there are other demands to take into account for use in an off-shore application."

Rosengren actually worked for Scania in the mid-1980s. His CV also includes a spell with innovative luxury car brand Koenigsegg, whose company website proclaims that nothing is impossible. "This is something I bring to my new role at Scania," he says. ●

MATTIAS ROSENGREN

Lead Engineer,
Electrification

Age: 50.

Family: Wife and four children.

Hobbies: "With a newborn in the family there is very little time for hobbies."



AN ARTICULATE RESPONSE

Doosan Infracore Norway is launching new articulated dump trucks at Bauma. Powered by Scania engines, the vehicles are equipped for the sustainability challenges now facing the construction industry.

text TSEMAYE OPUBOR *photos* PER OLAV TVERFJELL

DOOSAN INFRACORE NORWAY

MOLDE, NORWAY

Construction equipment company Doosan Infracore Norway has developed two new articulated dump trucks in the 30- and 40-tonne segment. Both dump trucks are powered by Scania Stage V engines and will be launched at Bauma, the world's leading construction machinery fair, which will be held in Munich, Germany, in April.

"We are in the testing phase now, and the dump trucks have been running for approximately 2,300 hours," says Jan Roger Lindseth, Sales Marketing Manager, Doosan Infracore Norway. "We are happy with the performance we are experiencing with the Scania engines."

In the range of 30 and 40 tonnes loading capacity, articulated dump trucks normally require a power range of 250 to 280 kW in the 30 tonnes class and 360 to 380 kW in the 40 tonnes class. The expected torque is between 1,800 to 2,000 Nm, and 2,400 to 2,500 Nm, respectively. With this kind of power need, the decision to use the Scania Stage V engines was a given for Doosan Infracore Norway.

"As Scania has a common platform for their engines, it gives us the flexibility to change between the different markets very easily and at short notice," Lindseth explains. "We also know that by offering Scania engines in our dump trucks, we are offering the performance that is expected from our customers."

Doosan Infracore plans to launch its equipment (powered by Scania engines) at Bauma. At this stage, the new trucks are ready for the EU market only (meeting the Stage V emissions standard), as the US market is continuing with Tier 4 final standard and the rest of world is continuing with the Tier 2 and Tier 3 emissions standards.

The business relationship between Scania and Doosan goes back a long way. The OEM has worked with Scania products in the manufacture of its articulated dump trucks since 1972. Head company Doosan Infracore acquired Doosan →



DOOSAN INFRACORE NORWAY

<http://www.doosaninfracore.com>

Doosan Infracore Norway
(formerly Moxy) has used
Scania engines in its
products for decades.



The company: Doosan Infracore, with headquarters in South Korea, is one of the world's largest general construction machinery companies, with 40,000 employees around the globe.





**“THE ENVIRONMENTAL
IMPACT OF THE
INDUSTRY IS BECOMING
MORE AND MORE
IMPORTANT.”**

JAN ROGER LINDSETH,
SALES MARKETING MANAGER,
DOOSAN INFRACORE NORWAY

- Infracore Norway (formerly Moxy) in 2008 and has since then incorporated the use of Scania engines in the wide machinery portfolio offered by the company, including wheel loaders, excavators and articulated dump trucks.

“Our long and successful cooperation with Scania is key to wanting to continue our partnership with them,” says Lindseth. “The easy communication during development projects and the support for our projects is always very good.”

The construction industry is changing, and in order to be prepared for new challenges it is important to provide dump trucks for the market that take into consideration the new demands of construction equipment. Fuel efficiency and the option to use biogas as fuel for articulated dump trucks are just two of the areas that Lindseth believes will become important trends for the industry.

“Big companies that are global players in the construction equipment industry are requiring more environmental focus,” he says, “and this will force the industry to adapt more quickly than we had previously thought. The environmental impact of the industry is becoming more and more important, no matter where in the world your business happens to be. Companies that can focus on alternatives will win in the long run, which is why suppliers like Scania are good to work with.”

Lindseth also believes that the construction industry will be experimenting with electrification and hybrid solutions in construction equipment, with machinery such as excavators leading the way in the future.

“We’ve seen the change to biofuel in buses, and we believe this might also be introduced for construction equipment in the future,” he says. “Of course, there are different requirements for different countries, but there is no doubt that the speed of development and new governmental regulations will encourage companies to find new solutions.” ●



Doosan Infracore Norway articulated dump trucks are built with superior power and traction for tough hauling conditions such as construction sites, road projects, mass excavation and mining and quarrying environments.



The Scania V8 16-litre gas engine will run on biogas for power-generation purposes. It features output ranges from 320 kW for continuous operating power.

TECHNOLOGY

WASTE NOT, WANT NOT

A new gas engine developed by Scania for power generation can use a completely natural, sustainable and renewable fuel source – your waste.

text TSEMAYE OPUBOR photos DAN BOMAN

The most cost-efficient and sustainable production comes from a mixture of gases created by the breakdown of organic matter in liquid waste, sewage sludge and food waste.

With up to 90 percent reduction in CO₂ emissions, better air quality with less particle emissions and lower operating costs than the equivalent amount of diesel, the sustainability aspects of biogas are also important – and impressive.

“This new gas engine is ahead of the curve,” says Hans Petersson, Global Product Manager Power Generation, Scania Engines. “We hear more and more from our customers that they are interested in this type of engine and in renewable fuel sources. We are starting to see an increased interest in gas engines across the world, especially in Brazil and Russia.”

The Scania V8 16-litre gas engine will run on

biogas for power-generation purposes. It features output ranges from 320 kW for continuous operating power and can be switched between 1,500 / 1,800 r/min at 360 kW for prime power.

“This engine is another step towards meeting Scania’s sustainability goals,” says Petersson. “While customer demand for biogas engines hasn’t fully taken off yet, our customers will learn more about the benefits of this type of engine. In the meantime, we will continue to refine it, perhaps in collaboration with some key customers.”

He believes that early adopters of the biogas engine will include customers who are looking for power generation and who have agricultural or municipal waste in their industries. As a result, he says, they will obtain “biogas for free, so they can create their own power.” ●

SCANIA AND RENEWABLE FUELS

Scania has pioneered the use of alternative fuels for 30 years, and today it has the broadest range of alternative-fuel-enabled heavy trucks and buses on the market. Biogas is emerging as a readily available renewable fuel for both vehicles and power-generation purposes in many parts of the world. The most cost-efficient and sustainable biogas production method is to use local sewage or waste.



ENGINES JOIN THE INTERNET OF THINGS

Following the success of its connected trucks and buses, Scania is now doing the same for its engines. Acting Head of Connected Services & Solutions Claes Jacobsson outlines the significant customer benefits of going digital.

text ANDREW MONTGOMERY *photos* SCANIA

Since adopting connectivity in 2011, Scania has gone on to fit automotive connectors to more than 360,000 vehicles, changing the very nature of service and maintenance in the process. Now Scania is doing the same with its engines.

In late 2018, subject to customer approval, Scania began fitting all new engines with the Scania Communicator, a black box that looks a bit like outsized hard drives. The company also initiated a programme to trace and retrofit existing engines – again provided that the end users give their approval.

The sheer potential opened up by the connected engine is something that Claes Jacobsson finds hugely exciting. In his role as Acting Head of Connected Services & Solutions, he is in charge of the team that gathers all the data transferred and translates it into valuable services that Scania can offer the marketplace, as well as supporting the company's network of service providers in their work with Scania customers.

“Connecting our customers’ engines allows us to capture a

**“WE BELIEVE THAT
ENGINE CONNECTIVITY
WILL BE OF HUGE
BENEFIT TO BOTH
OEMS AND END USERS.”**

CLAES JACOBSSON, ACTING
HEAD OF CONNECTED
SERVICES & SOLUTIONS

wealth of real-time user data that tells us when these engines will need servicing,” says Jacobsson. “By analysing this data, we can even identify any issue that may be developing and send out a technician to do predictive maintenance on an engine to troubleshoot any potential problems before it actually breaks down.”

Scania often speaks about the importance of customer uptime. The significance of uninterrupted power is, if anything, even more acute for the company’s engine customers.

“A stone crusher at a standstill in a mine could have a huge cost impact,” says Jacobsson. “You might see a day’s production go out the window. People tend to be willing to pay quite a lot to avoid that. We should be able to service engines in the best possible way to prevent machines from coming to a standstill, so here the sort of preventative maintenance that connectivity enables is vitally important.”

Commuter boat operators are set to enjoy similar benefits. Jacobsson, who used to be Managing Director of Scania Great Britain, points out that Thames River boat operators in London currently suffer similar penalties to public bus service operators if they don’t deliver their service as scheduled and in accordance with projected customer capacity. Timely servicing should help put a stop to that.

Hospitals constitute another customer group that stands to benefit from this vital innovative digital technology. In the event of a power failure, gensets have to be used by hospitals – and it’s essential for their engines to be in top working order.

The benefits are obvious. Why then is Scania only just introducing connectivity to engines now? Jacobsson has an answer: “The challenge for Scania is to be able to reach out to end users worldwide to be able to offer them remote diagnostics to keep their machines up and running.

“Without connectivity, we have been unable to help our customers in that way,” he continues. “Our trucks and buses are registered, so even if they are exported, we can work with them on remote diagnostics. Now, with connectivity, we will know exactly where each engine is and how it is being used, so we can offer customers an even better, more comprehensive service.”

When it comes to existing engines that have not yet been retrofitted with Scania Communicator, Jacobsson’s team is



Claes Jacobsson leads the team that translates connectivity data into valuable services for Scania customers.

now reaching out to OEM customers to get to where their customers, the end users, are. In some cases, OEMs may be doing the service and maintenance work themselves. However, in many more cases Scania’s specific engine-focused expertise could complement the OEMs’ own service business.

With the success of the connected trucks and buses (presenting customers with beneficial services such as Scania Maintenance with Flexible Plans and Scania Fleet Management), connectivity is also certain to revolutionise engines as well. Thus, facilitated fleet monitoring and management, more operational insight and higher uptime through proactive servicing are now on the menu.

“It’s still at an early stage,” says Jacobsson, “but we believe that engine connectivity will be of huge benefit to both OEMs and end users, allowing them to optimise the running of their engines, making them sustainable and maximising their uptime.” ●



SCANIA COMMUNICATOR

- Fitted onto Scania engines
- Provides user data
- Allows Scania to carry out predictive or just-in-time maintenance and prescribe customer-tailored services



Gold Digger
36-foot (11-metre)
Wayne Beal
Scania 13-litre, 675 hp,
2,300 r/min

THE MAINE EVENT

Every year, the US state of Maine holds its famous lobster boat races. Heather Thompson is one of the star performers.

text ANDREW MONTGOMERY photos TERRY BOIVIN

The Maine Lobster Boat Races are an essential part of this north-eastern US state's calendar. When lobster boats hit the coastal raceways, Maine's summer officially begins. Heather Thompson is a fourth-generation lobster boat captain who combines fishing sustainably for this "red gold" with racing. Thompson's boat, *Gold Digger*, is a 36-foot (11-metre) Wayne Beal powered by a 13-litre Scania engine (DI13 086M, 675 hp, 2,300 r/min) supplied by local distributor Mack Boring & Parts. After racing just one full circuit, her boat has won every championship in her class. Thompson is under contract with the hope of a TV show about lobstering.

"Ever since I was a little girl, I wanted a boat to race," she says. "I still get excited to see all the different boats, listen to the engines scream up and down the course and smell the fumes. I am quite competitive so racing fulfils that need. It doesn't matter if you are a man or woman; if you can drive a boat and you have some power, you can do it."

This year's season of 12 races begins in June, and Thompson will try to keep her crown. "For me, racing has become an addiction," she says. "It breaks up the lobster fishing grind and gives us something to look forward to. Having the support of my family, friends and Scania, I consider myself very lucky – as a racer and a fisherman!" ●

