



# INDUSTRIAL POWER SOLUTIONS

**SCANIA**



# COMPETITIVE TO THE CORE

With Scania as your power provider, you will not only have state-of-the-art engines. You will also reap the benefits of more than a century of engineering experience and expertise, coupled with an agile approach and committed support. The result is a power solution adapted to the tough demands of your operation, allowing you to focus on your core business.

#### 100,000 proofs of excellence – a year

Founded in 1891, Scania is today one of the world's leading manufacturers of trucks, buses, and engines for industrial and marine applications. Each year, we produce around 100,000 engines and every unit is the result of our proven track-record and constant development of new, cutting-edge solutions for heavy-duty applications.

#### Productivity redefined

The core of the Scania offering is our industry-leading 9- and 13-litre inline and 16-litre V8 engines, with power outputs from 275 to 780 hp (202-574 kW). Designed

and built in-house, they are based on our renowned common engine platform and unique modular system. The engines are both dependable and efficient and offer a complete array of power ratings and emission steps, all the way to US Tier 4f, EU Stage V, Korean Tier 5 and China Stage IV.

In combination with our expert help all the way from design and installation to aftermarket support, Scania engines are important contributors to increased efficiency, minimised environmental impact, and maximised uptime. In short, our solutions will help you redefine productivity.



## Power for construction operations

Dumpers plunging through rough construction sites. Wheel loaders securing crucial deliveries at remote road projects. Excavators keeping momentum in the harshest weather. Typical Scania territories; and no places for compromise.

The construction business is a challenging one and here, uptime is key. Scania offers robust and dependable engine solutions with excellent power-to-size, instant response, and uncompromising torque – features that are fundamental parts of our nature.

Regardless of application, you can relax knowing we will always manage the hardest jobs to the highest standard. In addition, our outstanding aftermarket availability ensures a strong partnership all the way.



## Power for stationary operations

Reliable water pumps in vulnerable areas, efficient stone crushers in a rough mining environment, a challenging solution for waste processing, or powerful compressors on remote off-grid locations – special applications often call for flexible and reliable solutions. Combining high precision handling and smooth operation with relentless power, no application is too different or too demanding for a Scania engine.

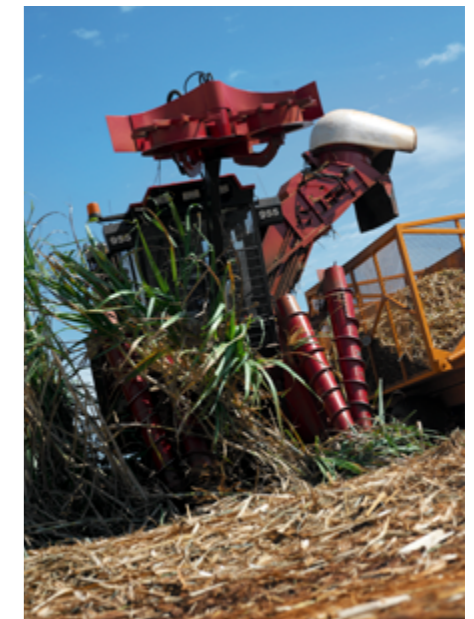
Our stationary engines are designed to ensure maximum performance as well as easy installation and maintenance. Whether for primary or back-up power services, our engines feature durable, dependable solutions for reliable and versatile power management at large-scale industrial and commercial sites.



## Power for material handling

In our globalised economy, markets, technologies and customer demands continuously change. Cost-efficient handling of goods plays an extremely important role, not the least in ports. Here, uptime is the principal focus. Featuring instant response, low operational cost and long service intervals, Scania engines are really in their

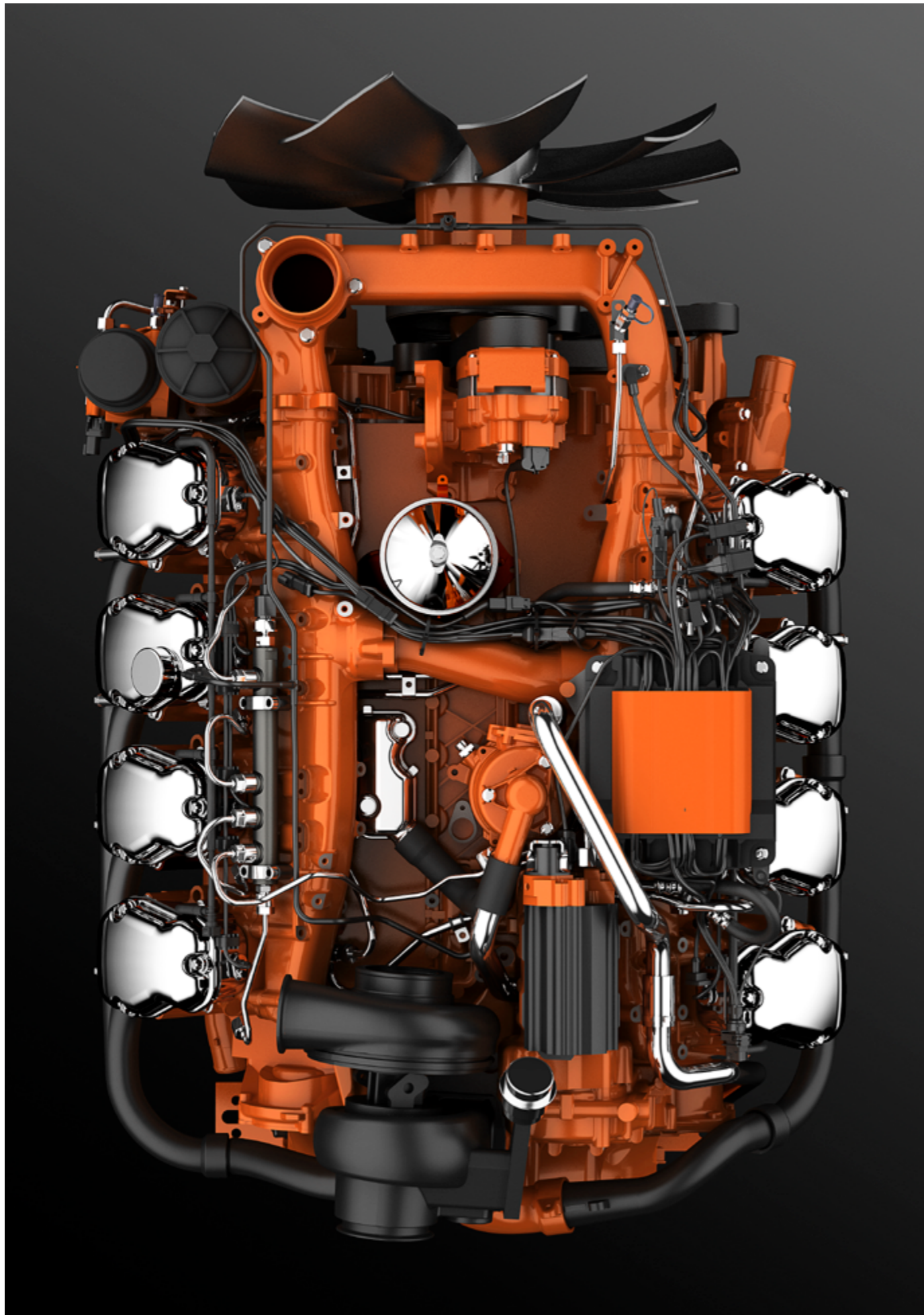
element. With loads of power and reliability, they make sure reach stackers, straddle carriers, and various types of trucks work together round the clock to handle the tight margins and busy operations.



## Power for agricultural operations

Nature has its own mind and makes its own plans. When there is no time to lose for taking care of the crops, you must have a proven workhorse to rely on. A combine, tractor or beet and sugarcane harvester – no matter what application you need, or when you need it, Scania is your reliable partner.

Operating in the agricultural business is not only about efficiency; it also evolves around great care of nature and environment, land and soil. To us at Scania, this goes hand in hand with our prominent environmental approach. And this is why our engines for agricultural equipment provide features like excellent power-to-weight ratio, fuel efficiency, and low emissions.



# OPTIMISED DESIGN AND INSTALLATION

With our expertise and flexible approach, we facilitate the design and installation processes and optimise the powertrain according to your application.

#### **Efficient engines for every application**

Scania offers products that are specifically designed according to a number of applications and ready to meet the particular needs of your operation. All engines are compact and streamlined by default, making them ideal to build into any application. The engine footprint is practically identical irrespective of emission steps, simplifying life for manufacturers operating globally, across different markets with different needs. For every engine model – 9-, 13- or 16-litre – there is a complete line-up of power ratings and emission steps to choose from. A perfect fit for every market, without the need for additional engineering or adjustments to your designs. Further, the unique Scania modular concept also contributes to a simplified and cost-efficient design and installation process.

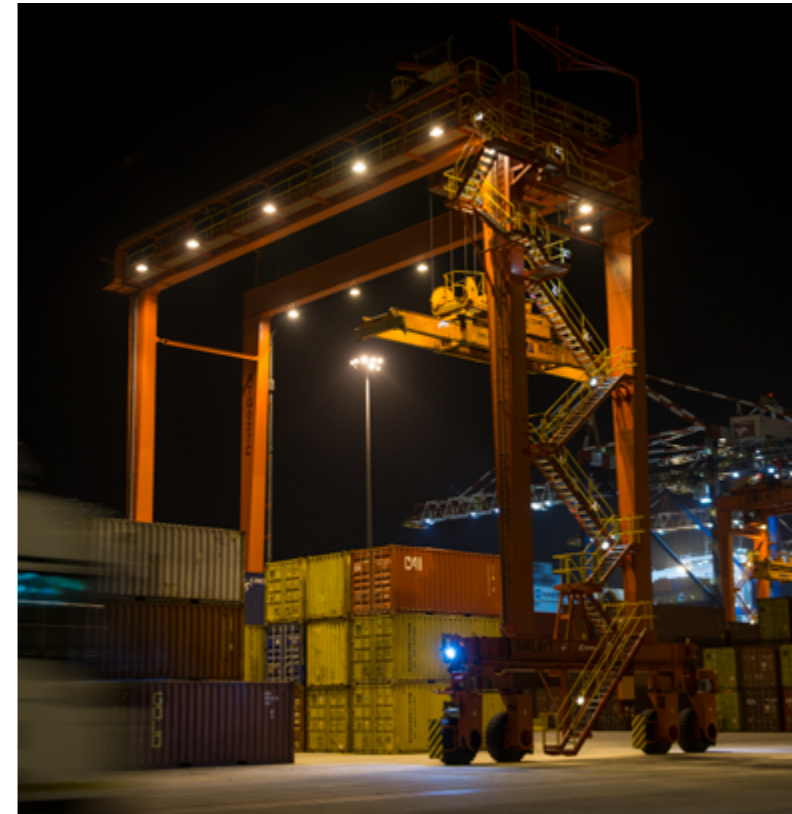
#### **Application support and powertrain optimisation**

When industry-leading experience meets tough customer demands and bright design ideas, great things happen. By taking part in your process as early as possible, the Scania application engineer is able to help you make things right from the beginning, thus contributing to smart solutions, cost-efficient installation and perfectly fitted end-products. Based on analysis of your needs, the Scania engineer suggests an optimised configuration including technical specifications.

The final tailored solution, along with technical information, drawings and 3D models are all parts of our pre-installation package. The next stage, the installation, is supported by comprehensive installation manuals and continuous guidance of the Scania application engineer.

#### **Installation approval**

The Scania installation approval program is part of and concludes the installation process, including thorough inspection and participation at the first performance tryout. The purpose of the test runs is to make sure that the entire system performs according to specifications. Engine temperature, load at rated engine speed, boost pressure and vehicle speed are examples of parameters being measured with diagnostic tools. The results are collected, analysed and commented in the Scania installation report. When necessary, Scania will help with suggestions to improve the installation. As soon as the installation complies with Scania's requirements for ideal performance, the installation approval is granted.



# ENVIRONMENTAL PERFORMANCE

Reliable performance is key, and our major focus is to design as efficient and durable engines as possible. In parallel, we embrace every effort to reduce the effects on climate and the environment. This is why there is a Scania engine for every existing and foreseeable emission level.

## Instant response and high power utilisation

Our streamlined engines are high-performing machines with a strong power-to-size-ratio. When powered by Scania, operators can expect instant response, uncompromising torque at low revs, and agile performance at any speed. Through excellent ratings, Scania power is available for utilisation whenever needed and makes hard work both enjoyable and efficient, even during long hours.

## Outstanding fuel efficiency

Scania has a worldwide reputation as a supplier of state-of-the-art products, services, and support – always with a strong environmental approach. Our engine platform makes no exception; thanks to unparalleled fuel efficiency and powertrain adaptation to any type of application, our customers will benefit from excellent operating economy and exceptional environmental performance.

## Emission control

At Scania, emission control goes hand in hand with our aim to reduce fuel consumption and environmental impact. This is why you can be sure that whichever specification you choose, every cubic millimetre of fuel is converted in the most efficient way possible. We have a track-record of meeting new emission legislation, such as US Tier 4f and EU Stage V well in advance, with reliable and dependable solutions. In addition, our engines run on a number of alternative fuels for you to select from.

## Infinite endurance

At Scania, efficiency is a word of honour that imbues all our operations. From development and design to repairs and service, we strive to maximise efficiency and minimise waste. As a result our engines present unmatched quality and durability, supported by our renowned modular concept with shared components for efficient service and parts availability.



# MAXIMISED UPTIME

Our highly reliable products, unique modular concept, and strong pre- and aftermarket support enable us to keep your operation up and running.

#### Amplify competitiveness

To most professionals, downtime is really bad news. And the longer the standstill, the harder it hits the bottom line. With this in mind, every part of the Scania industrial solution is developed to maximise uptime. All the way from the robustness and dependability of our engines and vital engine systems, to the optimisation of the products and the dedication of the people who are standing by to support you.

Further, taking the right care of machinery and equipment is key to prevent unexpected downtime. Scania's maintenance programs, as well as technical documentation, manuals and education programs, are developed to strengthen your competitiveness.

#### A worldwide service network

With a network of more than 1,900 service workshops all over the world, professional support and assistance is never far away. And thanks to the unique modular concept, service is facilitated for a single technician. Also, a large share of our authorised workshops are ready and reachable 365 days a year, ensuring downtime is kept to a minimum.

#### Outstanding parts availability

Scania's parts logistics network is one of the most advanced and reliable in the world. The global system comprises a central hub, satellite warehouses on every continent and, of course, your local Scania representative.

Our efficient network, together with our modular system, enable us to deliver the right part at the right time and in the right place – and the machine can be up and running again in no time.



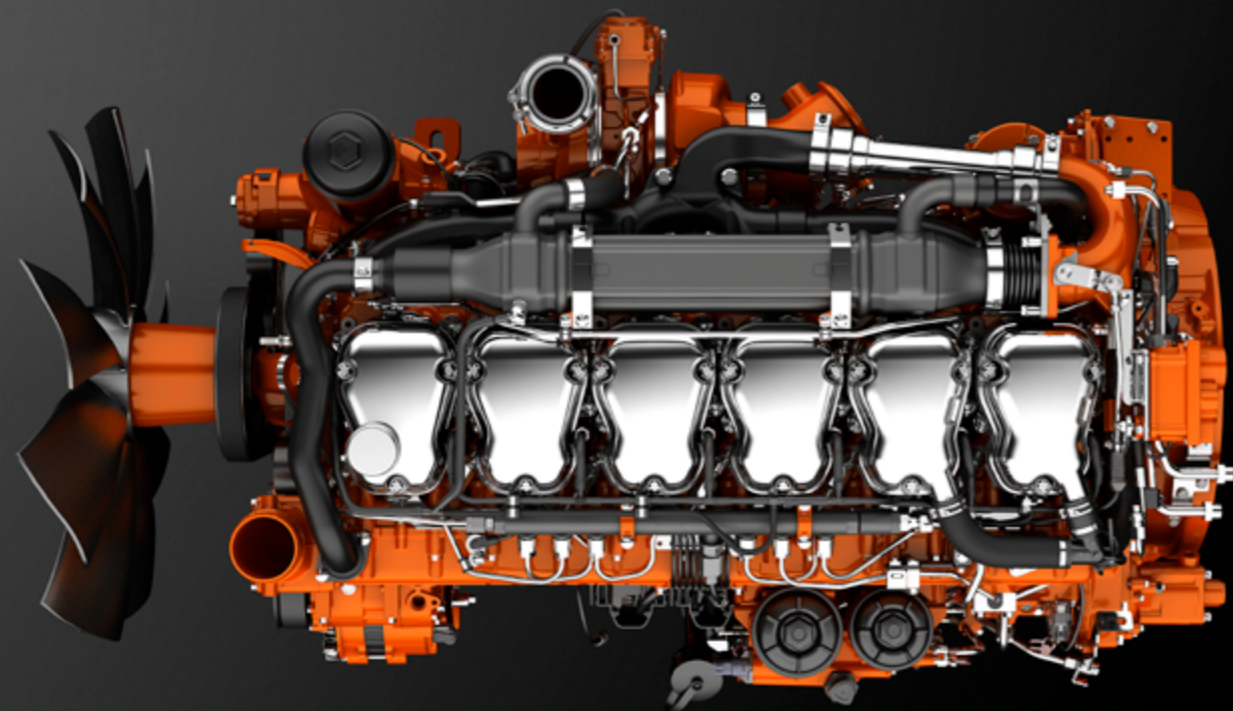
# PURE SCANIA. DOWN TO THE NANOMETRE.

Taking advantage of proven Scania solutions as a basis for further development, our engineers continue to be at the forefront of technology. While fuel-consumption and environmental impact is constantly reduced, our engines still deliver the power and torque you have come to expect from Scania.

Our engines, along with the aftertreatment systems, are designed and built in-house. They are known for industry-leading standards of reliability and efficiency. Starting out from the basic engines, we customise solutions regarding interfaces and additional equipment in line with your demands.

## Scania fuel injection systems

Scania has 2 fuel injection systems: Scania PDE and Scania XPI (extra high pressure injection), which is a Scania-designed common-rail fuel injection system. Both systems make continuous, precise adjustments to ensure optimal fuel delivery in all conditions without restricting torque build-up and step-load handling. Meeting demanding performance requirements, Scania XPI allows pressure to be set independently of engine speed, with exceptional precision.



## Scania emission control systems

Scania SCR (selective catalytic reduction) is a proven aftertreatment system ensuring that exhaust gases are released with minimum nitrogen oxide (NOx) content. A urea-based additive, AdBlue/DEF (diesel exhaust fuel), injected into the exhaust, converts the toxic nitrogen oxides into harmless water and nitrogen gas. Scania SCR is easy to handle, very reliable and does not affect torque and power output.

Scania EGR (exhaust gas recirculation) partly reuses exhaust gases, enabling reduced NOx levels and a strong environmental performance for a wide variety of applications.



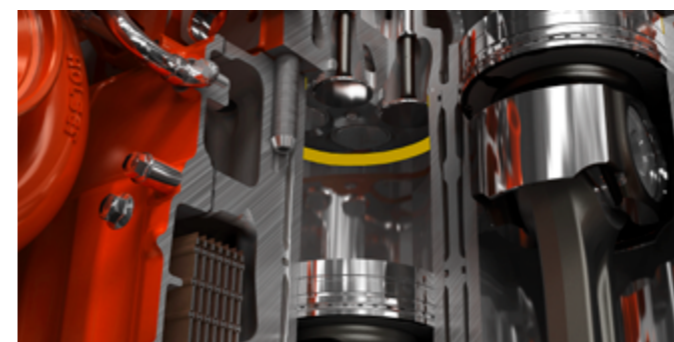
## Scania EMS

To secure control over all aspects of engine performance, as well as emissions, Scania has developed an advanced engine management system that controls all functions electronically – from fuel injection to exhaust gas aftertreatment. The Scania EMS (engine management system), entirely built in-house, also provides advanced diagnostics and allows detailed logging of operational data for subsequent analysis.



## Scania centrifugal cleaner

A proven and dependable solution for making oil filtration more effective. The oil cleaner combined with the maintenance-free CCV centrifuge reduces wear and costs for downtime. Used with the recommended Scania oil, this solution contributes to outstanding durability and service life.



## Scania saver ring

The Scania saver ring is a good example of our in-house developed technologies. Fitted inside the cylinder, the Scania saver ring removes soot and other residue from the upper part of the piston. A unique feature that reduces wear and extends engine life, thus contributing to Scania's renowned dependability and operating economy.

Depending on emission compliance the rating and output range may vary. For further details, please check the technical specification sheets on your local Scania market site.



