

PRESS RELEASE



4 September 2017

Powertrains for all requirements and applications

- Scania is constantly extending its range with Euro 6 engines
- Fuel savings of 7 to 10 percent achieved with the new V8 generation
- Scania five-cylinder inline engines now in five versions
- The quartet of 13-litre engines has been complemented by a 370 horsepower version

Thirteen different Euro 6 engines have so far been introduced into Scania's new truck generation, with power outputs of 280 to 730 horsepower, based on three different engine families. Going on sale in June, these were followed by most of the axle and gearbox configurations required to customise construction vehicles, fully-fledged forestry vehicles and heavy haulage tractors, where the focus is on features such as robustness and productivity. Regardless of the choice of powertrain, Scania can now offer even lower fuel consumption, thus helping customers to lay one of the most important foundation stones for the best total operating economy on the bottom line.

“As is well known in the industry, construction vehicles are the real all-rounders of the truck world, with an almost limitless number of different tasks and challenges to cope with,” says Anders Lampinen, Product Director, Construction, Scania Trucks. “But regardless of the application concerned or where you are driving in the flow of different processes that are so characteristic of the construction segment, as a Scania customer you must always feel that you get an optimally fuel-efficient powertrain adapted to the task.”

In June, Scania showcased a completely new generation of 16-litre V8 engines, which offer a reduction in consumption of 7 to 10 percent, among other things, depending on the type of application for which they are used. The improvement in the V8 engines is mainly based on the fact that they have undergone the corresponding modifications that were first showcased on Scania's best-selling 13-litre engines when Scania's new truck generation was premiered in autumn 2016.

The modifications include, the fact that with a few rare exceptions Scania now uses only selective catalytic reduction (SCR) for exhaust gas after-treatment, thus allowing the engines to be made both lighter and more robust with a fixed geometry turbocharger, and without exhaust gas recirculation in the form of an EGR system.



Scania's new V8 generation provides fuel savings of 7 to 10 percent, due to new technology and updated ancillary systems, while also increasing robustness and reliability.

Updated 9-litre engine

Scania's third engine family was also given a corresponding overhaul with robust, five-cylinder 9-litre engines in three different power levels during the early summer of 2017. Here too it is possible to recoup significant fuel savings in the order of 3 percent.

The new features consist of new engine software and a reconfigured combustion chamber. One important change is that the oil cooling is now thermostat-controlled. This contributes a 1 percent fuel saving, since the oil can generally be allowed to maintain a higher working temperature. The cooling fan is fitted directly on the crankshaft and no energy-intensive upshifting is required.

What all the DC09s now have in common is that like all* the other engines in the new truck generation, they only use a fixed geometry turbocharger (FGT) and the engines use only selective catalytic reduction (SCR) for exhaust gas after-treatment.



Scania's popular 9-litre engines are now available in five different versions for Euro 6, two of which can run on 100 percent biodiesel.

“Scania has very good experience of combining a fixed geometry turbocharger and SCR for exhaust gas after-treatment,” Lampinen says. “These are energy-efficient, robust and highly reliable engines, which deliver the power in many construction and distribution vehicles day after day.”

Other modifications that help to reduce consumption are an increased compression ratio (from 18.0:1 to 19.0:1), a cylinder pressure increased to a maximum of 190 bar (180 bar for the 280 version) and a more efficient combustion chamber.



Strong and robust

The DC09 is an engine that is thoroughly tried and tested. It has been part of the Scania range for a long time and has been through a number of changes of generation, which has ensured that it always remains at the leading edge in terms of consumption and driveability.

Due to the fact that it delivers 1,700 Nm at 1,050 r/min, with a rapid torque build-up from idling, it does a first-rate job in everything from thousands of heavily laden distribution vehicles to many construction vehicles in which the DC09 is found to be just right for this type of demanding operation, with train weights of around 30 tonnes.

The DC09 family shares its technology and design with its six-cylinder siblings in the DC13 in all material respects. Its balance shafts and the introduction of an asymmetric crank pin pitch (ACPP) counteract the tendency of five-cylinder engines to vibrate, so that it now runs just as smoothly and silently as a six-cylinder engine. Its natural clientele are those who need the power, robustness and low consumption, but who for reasons such as weight do not want to go the whole way to a six-cylinder engine.

A taste for biodiesel

In June the first engines running on alternative fuels also made their entry into the new truck generation in the form of the DC09 320 and DC09 360. With the right specification, both of these can run on diesel or 100 percent FAME (such as rapeseed methyl ester, RME) or any mixture of the two fuel types.

The current 320 and 360 biodiesel engines are the first of many Scania alternative fuel engines. All of Scania's Euro 6 diesel engines are already certified for a mixture of up to 10 percent biodiesel in their basic configuration, without any impact on maintenance requirements.

Pure biodiesel always produces significantly lower carbon dioxide emissions compared with conventional diesel. Some types of alternative fuels, such as hydro-treated vegetable oil (HVO), can produce a reduction in CO₂ of up to 90 percent. All of Scania's Euro 5 and Euro 6 engines in current production can be run on HVO without any restriction, regardless of generation.



Scania has now started work on extending its engine range for the new truck generation, with Euro 6 alternative fuel engines. First up are biodiesel variants, but there are more to come.



“Scania’s range of alternative fuel engines has a unique breadth, and there are a lot more in the pipeline,” says Henrik Eng, Segment Director, Urban, Scania Trucks. “The switch to sustainable transport solutions is a priority area for Scania in which we are working both long-term and on a ‘here-and-now’ agenda.”

* Except for the DC16 730

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Scania is a world-leading provider of transport solutions. Together with our partners and customers we are driving the shift towards a sustainable transport system. In 2016, we delivered 73,100 trucks, 8,300 buses as well as 7,800 industrial and marine engines to our customers. Net sales totalled nearly SEK 104 billion, of which about 20 percent were services-related. Founded in 1891, Scania now operates in more than 100 countries and employs some 46,000 people. Research and development are concentrated in Sweden, with branches in Brazil and India. Production takes place in Europe, Latin America and Asia, with regional production centres in Africa, Asia and Eurasia. Scania is part of Volkswagen Truck & Bus GmbH. For more information visit www.scania.com.

Scania’s current engine range in Euro 6 for the new truck generation:

Technical data DC09

	DC09 130 280 hp	DC09 126** 320 hp	DC09 127** 360 hp
Type	Inline		
Displacement	9.3 litres		
Firing order	1-2-4-5-3		
Cylinders	5		
Valves per cylinder	4		
Bore x stroke	130 x 140 mm		
Cam type	Normal		
Compression	19.0:1		
Fuel injection	Scania XPI		
Emission control	Scania SCR		
Exhaust brake	190 kW @ 2400 rpm		
Oil capacity	31 litres		
Max. output	280 hp (206 kW) at 1900 rpm	320 hp (235 kW) at 1900 rpm	360 hp (265 kW) at 1900 rpm
Max. torque	1400 Nm @ 1000-1350 rpm	1600 Nm @ 1050-1350 rpm	1700 Nm @ 1050-1350 rpm

** Also available in a version using up to 100% biodiesel such as FAME



Technical data DC13

	DC13 149 370 hp	DC13 141 410 hp	DC13 148 450 hp	DC13 155 500 hp
Type	Inline			
Displacement	12.7 litres			
Firing order	1-5-3-6-2-4			
Cylinders	6			
Valves per cylinder	4			
Bore x stroke	130 x 160 mm			
Cam type	Miller	Normal		
Compression	20.9:1	19.4:1		
Fuel injection	Scania XPI			
Emission control	Scania SCR			
Exhaust brake	256 kW @ 2400 rpm			
Oil capacity	43 litres			
Max. output	370 hp (272 kW) at 1900 rpm	410 hp (302 kW) at 1900 rpm	450 hp (331 kW) at 1900 rpm	500 hp (368 kW) at 1900 rpm
Max. torque	1900 Nm @ 1000-1300 rpm	2150 Nm @ 1000-1300 rpm	2350 Nm @ 1000-1300 rpm	2550 Nm @ 1000-1300 rpm

Technical data DC16

	DC16 116 520 hp	DC16 117 580 hp	DC16 118 650 hp	DC16 108 730 hp
Type	V8			
Displacement	16.3 litres			16.4 litres
Firing order	1-5-4-2-6-3-7-8			
Cylinders	90° V8			
Cylinder heads	8			
Valves per cylinder	4			
Bore x stroke	130 x 154 mm			
Cam type	Miller	Normal		
Compression	22.2:1	20.3:1		17.4:1
Fuel injection	Scania XPI			
Emission control	Scania SCR			Scania EGR/SCR
Exhaust brake	297 kW @ 2400 rpm			320 kW @ 2400 rpm
Oil capacity	43 litres			
Max. output	520 hp (382 kW) at 1900 rpm	580 hp (427 kW) at 1900 rpm	650 hp (479 kW) at 1900 rpm	730 hp (537 kW) at 1900 rpm
Max. torque	2700 Nm @ 1000-1300 rpm	3000 Nm @ 950-1350 rpm	3300 Nm @ 950-1350 rpm	3500 Nm @ 1000-1400 rpm

All of Scania's Euro 5 and Euro 6 engines can run on a mixture of up to 100% hydro-treated vegetable oil (HVO) and any proportion of diesel and HVO, regardless of engine family.