

FPT INDUSTRIAL UNVEILS DIESEL OF THE YEAR® CURSOR 16 ENGINE AT SAMOTER

Turin, May 2014

Powertrain innovator FPT Industrial was officially presented with the accolade DIESEL OF THE YEAR® 2014, awarded by Diesel Magazine for its latest offering for high power applications, the Cursor 16, at earth-moving and building machinery exhibition SaMoTer, in Verona, Italy, on 8 May 2014.

FPT Industrial's Sales Vice President Massimo Rubatto and Diesel magazine's Chief Editor Fabio Butturi unveiled the engine at the triennial exhibition.

"To be awarded DIESEL OF THE YEAR® is a fantastic achievement for all involved in the development of this engine and its technologies, originating from FPT Industrial's heritage of excellence and innovation," said FPT Industrial's Rubatto. "We're pleased to be able to reveal the engine to the public for the first time."

"Every now and then there is a massive leap in engine development and performance; FPT Industrial has achieved this with the Cursor 16 and Diesel magazine is pleased to be part of its launch into the market," said Butturi of Diesel magazine. "It's a deserved winner of this prestigious award."

FPT Industrial is the only engine provider to have been awarded DIESEL OF THE YEAR® twice, following the success in 2008 of its 3.2-litre F5 engine, which is currently equipping agricultural machinery for companies such as Carraro, Case IH and New Holland.

The new Cursor 16 offers best in class power and torque density, rated and max power as well as service intervals, crafted in a compact design to make it one of the smallest engines in its range. Suitable for construction, agriculture and power generation applications, among others, the 16-litre engine delivers 18-litre performance in a 13-litre package. It utilises proven technology and represents the top level of the successful Cursor Series family, renowned for its reliability and flexibility.

The 15.9-litre, six-cylinder in-line engine will be available in two versions: single stage turbo and dual stage turbo. The new engine has improved performance and durability, designed to deliver performance for heavy load applications, with the second stage version offering a fuel economy advantage in high load factor operations.

While adhering to Tier 4B and Stage IV emission regulations, the engine, with four valves per cylinder, delivers up to 570 kW with maximum torque of 3,320 Nm at 1,500 rpm in its single stage version and up to 630 kW with maximum torque of 3,500 Nm at 1,400 rpm in its double stage version.

The Cursor 16 is the first FPT Industrial engine to adopt a Compact Graphite Iron (CGI) cylinder head; this high performance material provides high thermal and mechanical resistance.

To be produced in FPT Industrial's Bourbon Lancy plant in France, the Cursor 16 engine has been co-developed by FPT Industrial's Research and Development teams in Arbon, Switzerland, and



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Turin, Italy. Combustion is optimised by the use of steel pistons, creating high peak cylinder pressure and, as a result, high power density and low Particular Matter (PM) output.

Combustion optimisation is furthered with a FPT-developed double re-entrant combustion bowl, two different turbulent vortexes within the bowl allow for the accurate control of fuel and air mix to maximise performance and minimise emissions, while ensuring no residual fuel is left on the cylinder lining.

The engine features a third generation Common Rail system, of up to 2,200 bar under cover, allowing a precise control of the injection process. Meanwhile, the Cursor 16's ball bearing turbo charger with waste gate further increases engine efficiency.

FPT Industrial's patented High Efficiency Selective Catalytic Reduction (HI-eSCR) technology is also utilised. Developed in-house to comply with stringent Stage IV/Tier 4 Final and Euro VI emission regulations, the system reduces Nitrogen Oxide (NOx) emissions by more than 95%. With no PM after-treatment system and the high power delivery potential without a mandatory air handling system, the HI-eSCR system increases reliability and lowers maintenance cost, while reducing operating costs over the entire product lifecycle. The compact system allows for the optimisation of space and minimises the weight impact due to integrated components.

In addition to its power and efficiency improvements, noise and vibration reduction has been achieved by the use of a rear geartrain timing system.

FPT Industrial's Cursor 16 engine will be on display on the Diesel magazine stand throughout SaMoTer on 8-11 May 2014.

For more information on FPT Industrial visit www.fptindustrial.com.

Main Cursor 16 features and benefits:

- Best in class for:
 - Power density
 - Torque density
 - Rated and max power
 - Maintenance intervals (600 hours)
- Compact design
- Meets Tier 4B and Stage IV emission regulations
- Proven and reliable turbocharging solutions
- High performance materials
 - Compact Graphite Iron (CGI) cylinder head and liners
- Base engine project concept and components shared with high power Cursor family
- Improved performance and durability

Cursor 16 specifications

Cursor 16 15.9 – WG

Architecture:	In-line 6-cylinder engine
Injection – pressure (bar):	Common Rail (up to 2,200 bar)
Intake:	WG
Valves per cylinder:	4
Displacement (l):	15.9
Unitary displacement (l):	2.65
Bore per stroke (mm):	141 x 170

Stroke/bore ratio:	1.21
Compression ratio:	16.5:1
Power range (rated kW):	480-515-570
Power range (peak kW):	480-515-570
Max torque (Nm @rpm):	2,990 (3,320 for 570 kW only) @1,500
Dry weight (kg):	1,320
Service interval:	600 hrs
Dimensions (mm) L / W /H:	1,378 / 951 / 1,326

Cursor 16 15.9 – 2stT

Architecture:	In-line 6-cylinder engine
Injection – pressure (bar):	Common Rail (up to 2,200 bar)
Intake:	2stT
Valves per cylinder:	4
Displacement (l):	15.9
Unitary displacement (l):	2.65
Bore per stroke (mm):	141 x 170
Stroke/bore ratio:	1.21
Compression ratio:	15.5:1
Power range (rated kW):	520-600
Power range (peak kW):	540-630
Max torque (Nm @rpm):	3,500 @ 1,400
Dry weight (kG):	1,450
Service interval:	600 hrs
Dimensions (mm) L / W /H:	1,378 / 1,010 / 1,326

***FPT Industrial** is a company of CNH Industrial, dedicated to the design, production and sale of powertrains for on and off-road vehicles, marine and power generation applications. The company employs approximately 8,000 people worldwide, in ten manufacturing plants and six R&D Centers. The FPT Industrial sales network consists of 100 dealers and over 1,300 service centers in almost 100 countries. A wide product offering, including six engine ranges from 31 kW up to 740 kW and transmissions with maximum torque of 200 Nm up to 500 Nm, and a close focus on R&D activities make FPT Industrial a world leader in industrial powertrains. For further information, visit www.fptindustrial.com.*