

FPT INDUSTRIAL SHOWS ITS STAGE V ENGINES LINE-UP AT INTERMAT

Turin, April 23, 2018

FPT Industrial presents its **full Stage V line-up at Intermat** (Paris, 23-28 April 2018, Paris Nord Villepinte, Hall 5A). After Pre-Intermat event, held in January, where journalists had the chance to discover FPT Industrial technologies, now it's the visitors turn to find out what's new for FPT Industrial engines; specifically, Stage V engines. FPT Industrial will present its products to the public with all their perks, and will mark its ability to be a lifecycle solution provider by combining together pre-sales engineering services, product excellence and aftersales services.



F36



FPT Industrial Stage V F36

Developed for off-road applications that require massive compactness, versatility and maneuverability, the **F36 engine** is the perfect fit for light construction machineries (e.g. skid steer loaders, compact wheel loaders, back hoe loaders, material handling) and other vehicles requiring great maneuverability.

Compared to its previous generation, this engine has been **completely redesigned**: the displacement has increased from 3.4 to 3.6 liters without altering the external dimensions, and improving the engine hardware. There is also a **new turbocharger** and a **new piston design**, which grant **higher performance**: the **power** output is, in fact, up to **143 hp** and **torque** up to

600 Nm, resulting respectively in 14% and 20% more than before. These features are made to assure best-in-class torque and power density and an improved productivity of 10%.

Finally, the F36 is characterized by a **600-hour oil change interval**, a one-side serviceability, and a **maintenance-free Hi-eSCR2**, which grants compliance to Stage V emissions standards.

F36 Stage V Specifications

| | |
|-------------------------------|-------------------------------|
| Architecture: | In-Line 4 cylinder engine |
| Injection System: | Common rail (up to 1,800 bar) |
| Air Handling: | Wastegate Turbocharger |
| Valves per cylinder (number): | 4 |
| Displacement (l): | 3.6 |
| Bore x Stroke (mm): | 102 x 110 |
| Max Power (kW/hp): | 105/143 |
| Max Torque (Nm): | 600 |
| Oil service intervals (h): | 600 |
| ATS: | Hi-eSCR2 |

NEW NEF ENGINE FAMILY



The new FPT Industrial N45 Stage V engine

Since 2001, FPT Industrial has produced more than **1.7 million engines** from the **NEF family**. This success and know-how have allowed FPT Industrial to develop two new solutions in order to respond to construction and agricultural demands.

The new engines are available in 4 (**N45**) and 6 (**N67**) cylinder configurations - with both non-structural and structural architecture – maintaining **best-in-class features**, the **efficiency** and the **reliability** of the whole engine family. Still intact from the previous models are the dimensions and the layout, but the engines have been redesigned in order to reach **higher performance**: they are now up to **204 hp** on the **N45** (+15%) and up to **354 hp** on the **N67** (+13%). With these improvements, **best-in-class power and torque density** are guaranteed, since they are up to 15% more than competitors' average in the 6 liters range.

Best-in-class features also regard the service intervals, which are up to 1,200 hours doubling their predecessors. Therefore, the engine is equipped **with Hi-eSCR2 after-treatment system**, which complies with Stage V standards and ensures a maintenance-free, low-operating cost solution. Furthermore, the Hi-eSCR2's compactness allows the Stage V solution to maintain the same packaging and the same cooling requirement as in Stage IV.

N45 Stage V Specifications

| | |
|-------------------------------|-------------------------------|
| Architecture: | In-Line 4 cylinder engine |
| Injection System: | Common rail (up to 1,600 bar) |
| Air Handling: | Wastegate Turbocharger |
| Valves per cylinder (number): | 4 |
| Displacement (l): | 4.5 |
| Bore x Stroke (mm): | 104 x 132 |
| Max Power (kW/hp): | 150/204 |
| Max Torque (Nm): | 800 |
| Oil service intervals (h): | 1,200 |
| EGR: | NO |
| ATS: | Hi-eSCR2 |

N67 Stage V Specifications

| | |
|-------------------------------|-------------------------------|
| Architecture: | In-Line 6 cylinder engine |
| Injection System: | Common rail (up to 1,600 bar) |
| Air Handling: | Wastegate / eVGT |
| Valves per cylinder (number): | 4 |
| Displacement (l): | 6.7 |
| Bore x Stroke (mm): | 104 x 132 |
| Max Power (kW/hp): | 260/354 (eVGT version) |
| Max Torque (Nm): | 1,420 (eVGT version) |

| | |
|----------------------------|----------|
| Oil service intervals (h): | 1,200 |
| EGR: | NO |
| ATS: | Hi-eSCR2 |

Cursor 16



FPT Industrial Stage V Cursor 16

FPT Industrial will also be exhibiting its **Cursor 16** engine at Intermat, the perfect solution for the **most demanding heavy duty operations**. The Cursor 16 is an award winning engine, thanks to its 2014 **Diesel of the Year** title, and it is the only engine on the market capable of delivering an **18-liter performance within a 13-liter engine package**.

Initially developed for Agriculture applications, the Cursor 16 is equipped with the most advanced technical solutions that **grant high performance, low operating costs and reliability**. The Cursor 16 is the **most compact 16-liter engine available on the market today** (7% less than competitors average) and its ball bearing turbocharger ensures fast load response for maximum productivity on field. As for performance, the Cursor 16 can reach a maximum power of 570 kW and a maximum torque of up to 3320 Nm.

Efficiency is guaranteed by the double re-entrant bowl, whilst **reliability** is assured by many features, such as the 220 bar in-cylinder pressure, the high resistance steel pistons and the robust and lean design which passed over **22.000 hours at bench validation**.

Cursor 16 uses **Hi-ESCR2 technology** as well, therefore it relies on this maintenance-free ATS system for minimizing running costs. This FPT Industrial engine is EGR free and features a second generation Common Rail in order to reach an high system efficiency.

Finally, the oil change intervals are up to 600 hours ensuring **low maintenance costs** and a **maximized uptime**.

Cursor 16 Stage V Specifications

| | |
|-------------------------------|---------------------------|
| Architecture: | In-line 6 cylinder engine |
| Injection System: | Common Rail 2200 bar |
| Air Handling: | Wastegate |
| Valves per cylinder (number): | 4 |
| Displacement (l): | 15.9 |
| Bore x Stroke (mm): | 141 x 170 |
| Max Power (kW/hp): | 480/652* |
| Max Torque (Nm): | 2751 |
| Oil service intervals (h): | 600 hours |
| EGR: | NO |
| ATS: | Hi-ESCR2 |

* Max engine capability 570 kW/3320 Nm

PowerPack, the smart installation package



With Stage V regulation approaching, many applications need an upgrade to comply with this new emissions' standard. Thus FPT Industrial developed a smart solution in order to allow easier emission compliance and machine upgrades, for both mobile and stationary applications:

the **PowerPack**. This installation package – which will be presented on a N67 engine at Intermat – encloses **all key after-treatment components in a single package**: DOC, SCR-on-Filter, AdBlue injection system, all required sensors and also manifolds.

Furthermore, the PowerPack is **compact** and **pre-assembled** so there's no need for a dedicated exhaust system design. Together with the PowerPack, even the Hi-eSCR2 features an installation flexibility: it comes as an engine-mounted solution, providing a ready-to-use solution, or as a loose pack to allow OEMs to design a unique layout. Whichever the case, all connections can be managed by a single cable for a fast and reliable linking between the engine and the electronic system.

FPT Industrial is a brand 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 more than 8,000 people worldwide, in ten manufacturing plants and seven R&D Centres. The FPT Industrial sales network consists of 93 dealers and over 900 service centres in almost 100 countries. A wide product offering, including six engine ranges from 42 hp up to 1,006 hp, transmissions with maximum torque of 200 Nm up to 500 Nm, front and rear axles from 2 to 32 ton GAW (Gross Axle Weight) and a close focus on R&D activities make FPT Industrial a world leader in industrial powertrains. For further information, visit www.fptindustrial.com.

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