AGRITECHNICA 2009: FIAT POWERTRAIN TECHNOLOGIES PRESENTS THE AGRICULTURAL AND INDUSTRIAL ENGINE RANGE

FPT – Fiat Powertrain Technologies, the Fiat Group company specialising in research, development and production of power units for automotive, industrial, agricultural, marine and power generation applications, is in attendance with its own stand (pavilion 6, Stand H03) at Agritechnica 2009 in Hanover.

The exhibition dedicated to agricultural and agro-industrial machinery is an occasion for FPT to present its range of engines for agricultural applications, at the cutting edge in terms of technological features, low price, high performance and reduced fuel consumption, achieved through constant research and development activity.

Divided into four product families (F, N, C, V) to cover a wide power range, FPT engines for agricultural applications employ the most advanced technology currently available on the market, multivalve-supplied with fixed or variable geometry turbochargers, mechanical or state-of-the-art electronically-controlled injection systems such as Common Rail or Injector Pump.

Thanks to the technology adopted, FPT engines are distinguished by their reduced noise and limited vibration in response to the Phase 3 emission standards (EU IIIA – USA EPA Tier 3), through the simple and reliable aid of the internal EGR (Exhaust Gas Recirculation) system alone.

In response to the future Tier 4 interim/Stage IIIB standard, which from 2011 will impose a drastic reduction in particulate (PM) and nitrogen oxide (NOx), FPT is displaying the solution that will be adopted for the N, C and V engine families, the SCR (Selective Catalyst Reduction) post-treatment system.
MODERN AND EFFICIENT, SERIES F ENGINES: WINNERS OF THE “DIESEL OF THE YEAR 2008” AWARD

Engine series F is at the core of FPT's agricultural range. Launched in 2008, it is made up of 4 cylinder turbocharged engines, 2 valves per cylinder, supplied by a mechanical injection system.

Created in Tier 3 /Stage IIIA the F family was designed and produced completely from scratch to satisfy the needs of the Off-Road market: from tractors and agricultural small-medium machinery to earth-moving.

F family engines, thanks to their compact dimensions, single-side access for maintenance activity and flexible set-up, always achieve the best compromise between performance and ease of installation.

Available in a structural and non-structural version, with or without external EGR, with or without aftercooler, the F32 engine features a total displacement of 3.2 litres and is capable of supplying power up to 65 kW (88 HP) between 2300–2500 rpm, as well as torque up to 350 Nm starting from 1300 rpm.

The structural version of the F32, on show at Agritechnica 2009, is particularly suitable for application with tractors including Specialty (Vineyard, Orchard) & Utility.

**F32 MRS**

**MAIN TECHNICAL SPECIFICATIONS:**

- Power - 53 kW (72 HP) @ 2300 rpm
- Displacement - 3.2 litres
- 4 cylinder in-line
- Turbocharger
- Mechanical injection
- Structural version
- Stage III A - Tier 3
POWERFUL AND TECHNOLOGICALLY ADVANCED, SERIES N AND C ENGINES ARE AVAILABLE WITH SCR TO MEET THE TIER 4i STANDARD

Available in 4 and 6 cylinder versions, engines in the N range are fitted with either a mechanical or second-generation Common Rail injection system. The power range extends from the 66 kW (90 HP) of the N45 in its basic configuration, to the 181 kW (246 HP) of the leading N67 Common Rail model, that supplies a remarkable maximum torque of 1020 Nm at only 1500 rpm.

The N range is represented on the FPT stand by two models: the innovative N67 ENT with SCR (Selective Catalyst Reduction) and the N67 MNT A800 version for motorised irrigation pump.

The N67 ENT + SCR represents FPT’s response to the future Tier 4 interim/Stage III B standards.

It is 6 cylinder in-line, 4 valves per cylinder, with electronic Common Rail injection system. Best in its category as far as oil change intervals are concerned (up to 600 hours), it is used in combine harvesters and tractors for medium-heavy applications.

Thanks to the SCR post-treatment system, which reacts using a urea-based additive, adherence to emissions levels is achieved in two simple steps:

1. PM reduction in the engine is achieved through an improved combustion process, which minimises fuel consumption and increases performance.
2. NOx reduction occurs in the SCR.

**N67 ENT + SCR**

**MAIN TECHNICAL SPECIFICATIONS:**

| Power – 210 kW (286 HP) @ 2200 rpm |
| Displacement – 6.7 litres |
| 6 cylinder in-line |
| Turbocharger aftercooler |
| Common Rail electronic injection |
| SCR (Selective Catalyst Reduction) |
| Stage III B – Tier 4i |
The Common Rail injection system offers advantages both in terms of high operating pressures, and through the electronically-managed injection process, which does not depend on engine speed. This allows, among other things, drastic reductions in noise and gas emissions, as well as optimal fuel dosing and timing for every operating condition.

The engines in the heavy series C, all with 6 cylinder architecture, cover a wide power range (from 200 to 375 kW) thanks to three different displacement possibilities, from the C87, 8.7 litre Common Rail, to the C10 and C13, 10.3 and 13 litre respectively, with Injector Pump supply system.

Series C is represented at Agritechnica by the range's finest engine, with a displacement of 13 litres, which expresses the most advanced motor engineering and experience of FPT – Fiat Powertrain Technologies.

Ideal for combine harvesters, forage harvesters, and tractors for heavy applications, the engine offers high reliability, durability and flexibility, combined with high performance, low operating costs and limited noise and gas emissions. In the most powerful C engines, the potential of modern electronic control technologies has been exploited to the full, resulting in a new balance between performance and efficiency, as the levels of torque and power available clearly show.

**C13 ENT**

**MAIN TECHNICAL SPECIFICATIONS:**

- **Power** - 375 kW (510 HP) @ 2100 rpm
- **Displacement** - 12.9 litres
- **6 cylinder in-line**
- **Turbo aftercooler**
- **Injection pump fuel injection system**
- **Stage III A - Tier 3**
FPT IS DISPLAYING THE A800: A COMPLETE POWER UNIT FOR AGRICULTURAL APPLICATIONS

The motorised irrigation pump on show at Agritechnica is the N67 MNT A800.

Thanks to the addition of optionals such as radiators, sensors, air filters and exhaust system, the reliable N67 with mechanical pump becomes the A800 version, a complete power unit.

To guarantee a high standard of reliability, all these optionals are specially designed to function in the most challenging operating conditions, typical of agricultural applications, thus ensuring: reliability, easy access for maintenance operations plus the quality that comes from an assembly produced directly by FPT.

The N67 MNT A800 is 6 cylinder in-line with 2 valves per cylinder, mechanical injection, turbocharger and aftercooler.

**N67 MNT A800**

**MAIN TECHNICAL SPECIFICATIONS:**

- **Power** - 129 kW (175 HP) @ 2200 rpm
- **Displacement** - 6.7 litres
- **6 cylinder in-line**
- **Turbocharger aftercooler**
- **Mechanical Injection**
- **Stage III A - Tier 3**
FPT - FIAT POWERTRAIN TECHNOLOGIES

Fiat Powertrain Technologies is the company of the Fiat Group - specialized in and dedicated to research, development, production and sale of engines and transmissions for the following applications:

- automotive (cars, commercial vehicles, trucks, buses, special vehicles)
- industrial (construction equipment, agricultural and irrigation machinery, special machinery)
- marine (pleasure and professional applications)
- power generation (generating sets)
- railways

FPT can satisfy almost any powertrain requirement thanks to an extremely wide range of products:

- engines (with power from 20 to 1,020 hp and displacement from 1,000 to 20,100 cc)
- transmissions (from 143 to 400 Nm)

FPT is one of the most significant powertrain manufacturing companies in the world, with an experience of over a century under different brand names and with an annual output that reached approximately 2.9 million engines and 2.4 million transmissions and axles in 2008. FPT employs 20,000 people (of which 3,000 are highly specialized engineers), operates 17 plants and 14 research centres (two of which are dedicated to advanced research) located in 10 countries.

Contacts:

Franco Bay
+39 011 0038603
+39 333 7897749
franco.bay@fptpowertrain.com