Brand Communications
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Press release

Europe's first diesel tractor powered by natural gas / biogas

Research project ripe for market

Biogas brings tractor up to speed / Environment-friendly drive concept

St. Valentin, April 2009

Following the first research and development project of its kind in Europe, Steyr is set in future to switch to environment-friendly and cost-saving natural gas / bio gas fuel.
A firm called LuPower has been working together with Steyr to develop the prototype of a diesel tractor powered by natural gas / biogas.
The biogas fuel is generated by conventional biogas plants.

Retrofit available

Modern diesel tractors can be converted to biogas operation using a retrofit kit. As a result, all machines in agricultural, forestry and municipal applications can be operated more environment-friendly and cost effectively.

A solution to reduce costs and protect the climate has been developed by Steyr, LuPower and oberösterreichische Ferngas:

In future a CVT 6195 type tractor can be operated using diesel, biogas or natural gas. The requisite biogas comes directly from the farm.

This new technology, which can also be used to power agricultural machinery, was presented to the agricultural press for the first time at the end of March.
"As one of the most innovative tractor manufacturers, we have a duty to develop alternative energies and technologies as innovations for our products", says Andreas Klauser, European Managing Director of Case IH and Steyr.

Fuel costs can be reduced by up to 40 percent
By converting a Steyr CVT 6195 to be able to operate with diesel, natural gas and biogas, up to 40 percent of diesel costs can be saved.
Because biogas is CO_2 neutral as a fuel, this development is not just cost effective; it also protects the climate and our environment. By switching to natural gas and biogas, CO_2 emissions are reduced by around 20 percent per journey.

Environment-friendly power
The reduction in NOx is approx. 17 percent, particulate emissions are 19 percent lower, hydrocarbons are 87 percent lower and 97 percent less carbon monoxide is emitted.

Diesel fuel is still required as an ignition catalyst to run the diesel engines, but the quantity of biogas admixed to the combustion air can be regulated according to the power curve, considerably reducing the proportion of diesel required in the fuel mix.

"In Europe there is a large number of agricultural biogas plants, most of which are used to generate electricity", explains Andreas Klauser. "Sufficient quantities of biogas are available as fuel for tractors as a result," is how Andreas Klauser views an additional advantage for the new technology.

The biogenetic fuel is generated in conventional biogas plants from liquid manure, sustainable raw materials and biogenetic waste. Biogas can therefore be produced in-situ by any agricultural or municipal business. Using tried and tested filter technology, the biogas can be treated to produce high-quality bio fuel. The biogas is filled into composite cylinders that are then mounted on the tractor chassis. This innovative retrofit technology was designed by LuPower based in St. Andrä in Lungau/Salzburg.

And there's more - the Steyr experts are aware of other advantages too: "the production of biogas reduces the imports of fossil fuel and increases the value created by one's own land", says Wolfgang Müller, Press Officer at Steyr in St. Valentin.

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Steyr Tractors - CNH Austria

Steyr represents more than 60 years of industry-leading technology from Austria and specialises in tractors of the highest quality and exceptional comfort. The impressive range of Steyr tractors features ongoing technical innovations for the highest productivity in the agricultural, forestry and municipal sectors. The Steyr dealership network guarantees optimum customer service on site. For more information please visit www.steyr-traktoren.com.

OÖ. Ferngas AG

OÖ. Ferngas AG supplies natural gas through a network infrastructure of 5,056 kilometres of pipelines. This underground network transports around 2 billion cubic metres of natural gas every year. The turnover of the OÖ. Ferngas Group in 2007/08 was EUR 120.92 million. In order to guarantee supplies over the long-term, the business made investments of EUR 21.81 million during the last business year.

OÖ. Ferngas AG is owned 65 percent by Energie AG Oberösterreich, 28 percent by Linz AG and 7 percent by Elektrizitätswerk Wels. Major holdings of OÖ. Ferngas AG include the 100% subsidiary Erdgas OÖ. and their 100% subsidiary ENSERV Energieservice, a heat provider.

LuPower

LuPower GmbH & Co KG intends its activities to contribute to independence from traditional fossil fuels and to create a healthier environment. Our potential is not just in the technical solutions we offer - it is also in our motivation to implement these technical solutions and opportunities inline with the company's philosophy.

- Retrofitting petrol and diesel engines to operate with CNG (natural gas/biogas).
- Innovation and development of alternative fuel systems.
- Mobile pressure vessel systems.
- Overall concepts for natural gas/biogas.

Europe´s first diesel tractor – a Steyr CVT 6195 prototype – powered by natural gas / biogas