

# All Aboard!

## As Green Fuels Powers The Royal Train

**His Royal Highness The Prince of Wales** has become the first passenger in Britain to travel on a train fuelled entirely by 100% biodiesel, supplied by Green Fuels Ltd. His 900 mile journey surpassed all expectations with results showing a 31% decrease in carbon monoxide emissions and a 19% decrease in carbon dioxide, with no loss of power, even at full load.

Data from previous trials by others had suggested that anything greater than a 20% blend would not be suitable even with engine modifications. During our trials no engine modifications were required and none are expected to be needed for full-scale operation. The positive results from the train trial will help consideration of the Royal train being permanently operated on 100% biodiesel.

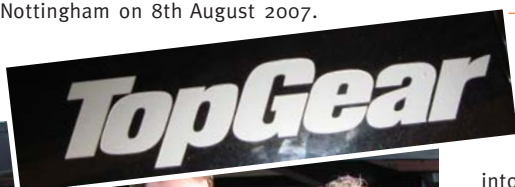
EWS Ltd, the Royal Train operator and Britain's largest rail freight haulier, carried out a variety of technical tests on the locomotive type (known as class 67) that hauls the Royal train. As part of Green Fuels Special Projects, we provided the fuel to run the first 100% biodiesel train which travelled from Crewe in Cheshire to Toton in Nottingham on 8th August 2007.



Photograph by Philip Haigh/RAIL magazine

By producing the fuel in our FuelMatic process to include the use of methylate and Amberlite™ BD10DRY™ we are able to exceed all biodiesel standards and produce a quality fuel, to be a consistent and reliable 100% replacement for mineral diesel.

Green Fuels managing director, James Hygate, was lucky enough to be a guest on the Royal train. "It was very exciting for us to be part of this significant project. We're a market leader in this industry and welcomed the chance to prove the fuel's capability in such a high-profile event."



## Goes Green On Biodiesel



Richard Hammond drove Green Fuels into the record books in September, when the Top Gear team's BMW came 3rd in its class at the Silverstone 24 hour endurance race. The car was fuelled by Green Fuels' biodiesel, the first time a 100% biodiesel vehicle has entered a competitive motor race.

Jeremy Clarkson and James May were Hammond's co-drivers during the Le-Mans style race. In practice the car secured fastest in class with Top Gear's famous 'Stig' at the wheel and achieved 39th place overall in a field of 60. But the really big achievement was its 3rd place position against the other diesel cars running on fossil fuel.

Green Fuels managing director James Hygate says "Even Jeremy Clarkson can make his own fuel and be confident to enter a 24 hour race with it in his tank."

The race will be broadcast on Top Gear this autumn. Green Fuels has also been seen on ITV's Pulling Power demonstrating the use of their Fuel Flex kits that enable any fuel injection car to run on bioethanol.



# Green Fuels Gets Greener for Life Endorsement



We are proud to have become the only approved biodiesel equipment supplier to the **Greener for Life Fund**, established to allow UK farmers to fund bio-energy projects.

Greener for Life aims to set out a blueprint for sustainability linking farmers, processors, retailers, industry, business and the consumers back to the countryside. This sustainability is linked to quality assured products whilst guaranteeing environmental protection linked to energy and waste management.

The organisation was impressed by the reliability, performance and support offered by Green Fuels.

## Stamp of Approval for Biodiesel

Unfortunately, evidence of poor quality biodiesel produced in unsuitable equipment is widespread, so we're getting the industry to put its house in order by establishing a Green Fuels Approved stamp. This will help to ensure that all fuels sold by our distributors meet stringent quality standards, as well as building confidence in our industry amongst consumers.

Our equipment exceeds all international standards for biodiesel and we are establishing a testing regime for oil and fuel for our FuelMatic and FuelSonic customers so they can sell under the 'Green Fuels Approved' stamp.

Monthly testing and production guidance will help pool our established base of 200,000,000 litres per annum into the UK's only reliable and sustainable supply of B100.

To qualify for Approved status, producers must also meet sustainability standards where the feedstock can only be produced from locally supplied virgin or waste oil and be free from palm, or hydrogenated oils commonly found in other fuels.

As a Green Fuels Approved fuel supplier you will be able to help build confidence in the biodiesel industry as a whole. If you would like to learn more about becoming an Approved supplier, please contact us on

[info@greenfuels.co.uk](mailto:info@greenfuels.co.uk)

Tel: 0845 603 9338

[www.greenfuels.co.uk](http://www.greenfuels.co.uk)

## R & D Drives Us Forward

With oil prices on the rise again, we are continuing to launch new products including a small scale system that allows our domestic customers to produce road-legal fuel for as little as nine pence per litre.

The new FuelPod2 with Amberlite™ BD10DRY™ technology allows domestic users to gain the same fuel purification benefits as enjoyed by our large commercial operators. The system incorporates fully Atex approved pumps and controls delivering the highest standards of safety and reliability. Other systems on the market use unsatisfactory washing methods and highly dangerous immersion heaters in plastic tanks which, from a health and safety point of view, should be avoided at all costs.

This year will also see the launch of the most efficient and cost effective FuelSonic continuous flow system. With specialised ultrasonic mixing and unique in-line separation, we can supply fully automated systems capable of producing more than 2,000 litres per hour, which will fit within a 20 foot container. This will enable our large scale customers to exploit state of the art mixing technology.



# HY-GEN The Vehicle Mounted Hydrogen Generator

Fuel savings of up to 25% are being produced by Green Fuels Ltd's new HY-GEN product - the first reliable and safe system that adds hydrogen to any regular hydrocarbon fuel, delivering improvements in emissions and engine performance.

HY-GEN operates by converting distilled water to hydrogen and oxygen gases. When introduced into the engine's air intake, these gases accelerate fuel burn, producing a faster, cleaner and more complete combustion cycle. This in turn lowers emissions, increases horsepower and delivers better fuel economy. As the engine runs more efficiently, vehicle maintenance and operation costs can also be reduced.

HY-GEN installation is simple and can be performed either by Green Fuels, or after completing specialist training by your company's own technicians. The unit can also be moved between vehicles.

The system also provides the user with digital data on temperature, flow rate, shut down and service.

HY-GEN works with any internal combustion engine regardless of the type of fuel.



## FuelMatic Installation

