

Econokit - could this be the return of the steam engine?



For over one hundred years inventors have been introducing steam or water mist into internal combustion engines to improve their efficiency, more recently in California those interested in reducing pollution have experimented with emulsified fuel (a mixture of fuel and water) which has resulted in a 70+% reduction in pollution on otherwise standard engines. Mixing of water and fuel is not straightforward and neither is water injection (which has been used in motor sport on high performance engines to suppress detonation or pre-ignition). Recently a product has been launched in Europe called Econokit which appears to have removed the complexity of introducing water while retaining the benefits. Independent testing has shown significant emissions reduction and results have also shown a reduction in fuel consumption (in some cases in excess of 10%). So how does it do this? Well rather than injecting the water/fuel, Econokit uses the natural engine induction air flow to entrain a fuel enhancing mist/gas into the engine inlet air stream. The gas/mist is created by a special bubbling process creating humid air which is then super heated (steam) and then Ionised by a special reactor device (clipped to the outside of the exhaust manifold), turning it into the the fuel enhancing gas/mist combination, this gas/mist combines with the fuel at the instant of combustion inside the engine cylinder to help the fuel burn more completely. So this product cleans up the engine pollution and releases more energy from the fuel, so less fuel is required for a given level of performance, the reduction in fuel consumed also leads to a reduction in CO₂ being produced. During use Econokit also steam cleans the inside of the engine restoring lost efficiency caused by Carbon deposit build up. Econokit has been developed over the last 5 years with the main objectives being to produce an after market retrofit product that is easy to install and causes minimal additional user burden. Once the kit is installed, it simply needs to be topped up occasionally with demineralised (or ideally rain water). For those worried about any side effects from the mist inhalation, the manufacturers say that the levels of mist inhaled are kept to a minimum and these are roughly equivalent to the amount of mist inhaled by an engine in foggy or misty conditions which of course all engines are designed to cope with. Econokit is available for normally aspirated petrol engines up to 4 ltr capacity and turbo diesel engines for cars, vans and even big trucks. Econokits are currently being retailed in the UK via www.econokituk.com . In summary Econokit appears to cost effectively enable consumers to improve their emissions and fuel economy without having to replace their vehicle. So you can cost effectively do your bit to reduce pollution while saving fuel with an Econokit.