

ELECTRIFYING MODELS



Ken Rimell visits a company near the Sussex coast that specialises in building electrically-powered models.

By his own admission, David House is not a qualified engineer. However, he recently retired from running his own very successful medical engineering company, Medic-Aid, which was a byword for small and light medical machines, such as nebulisers and heart monitors. The equipment his company made is still in front line service in the health industry.

David started his working life as a salesman for Vickers Armstrong, the aircraft builders from Weybridge, and it was while on a selling trip to the USA that he met a professor of medicine who explained the difficulty in getting US companies to make often obscure types of medical equipment. He pondered long and hard and decided to form his own company, so he gave up his job with Vickers in 1974 and with a capital of £4,000 set up on his own.

While not an engineer, he knew what was wanted and gathered about him a small and dedicated team of engineers. He would explain his ideas, based on further medical investigations as to what the medical profession wanted, and the engineers would create the machines. Twenty years on, David



TOP - The OMC 2 beam engine with the tools needed for assembly.

ABOVE - The finished OMC 2 beam engine.

decided to take early retirement and sold the business for millions.

He became bored; still fascinated by small machines, it was when he came across a small rocking engine his grandfather had given him as a child, stored and forgotten for many years in a cupboard, that another idea gelled in his mind.

The engine was a 100 year old rocking engine, a model of a Faraday design where low voltage of electricity powered an engine. Michael Faraday was an engineer well before his time. Even as a child, David had an affinity with this great man which was probably the reason his grandfather gave him the old rocking engine.

Faraday was born in September 1791 in Newington Butts, better known today as the Elephant & Castle in London, and died in 1867. He won the Royal Medal in 1846 for his work in electromagnetic induction. He had little education but is still classed as the best experimentalist in the history of science. Faraday's law of induction states that 'a magnetic field changing in time creates a proportional electromotive force'.

The old engine was given a thorough clean and was soon working. David watched the engine for hours; as it ticked away, he had the idea that these small, easy to assemble models could be saleable if he could find a local company to make the components. He told me most men dream of becoming engineers of some sort or another, but lack the skills to actually make the bits, so by assembling an engine from a kit, it gives the builder a special sort of satisfaction.

He found two local companies who were prepared to make and machine the parts for the three engines he now sells through the Old Model Engine Company. Towncross Engineering in Bognor Regis is owned and run by Paul King, a specialist engineer in small precision milling. Wheels, rods, indeed all the parts, are CNC milled from brass to a very high quality. Just a few miles away Paul's father John runs Precision Windings and this is where the small coil windings are made. Both companies were able to put David House's ideas into practice adding their own modifications along the way.

Today, from David House's very clean workshop down a quiet country lane in West Sussex, three rocking style model engines are now packed and sent to all corners of the globe.

As he proudly showed me, the skill in producing the engines is backed by innovative packaging as well. Each box is specially made to accommodate the model; it can also be used so that the builder gets accuracy while assembling the model.

The three engines now being produced are the OMC1 Rocking Engine, based on an 1850 electromagnetic engine, OMC2 (slightly more technical) a beam engine, and OMC3 is a Fromant Armature Rotating Engine.

However, David House is not sitting back and taking it easy. He's well advanced on another model, this time in the world of steam. Worried about children and high-pressure steam, he's designing a steam engine which will run on low-pressure steam.

David is a clever man; he has the ability to think a model engineering design through and seek advice from professionals when he's not certain. Being a great fan of Faraday has no doubt influenced his thoughts and the present line-up of models shows



ABOVE - David House with the models produced by his company – OMC 1 Rocking Engine, OMC 2 beam engine, and OMC 3 Fromant Armature Rotating Engine.

RIGHT - Paul King runs Towncross Engineering which manufacture the models' components.



BELOW - This lady was coil winding at Precision Windings run by John King, Paul's father.

BELOW RIGHT - The specially designed box that serves not only for delivery but storage and as a mobile workbench.



this. The new range, due out in the not too distant future will be quite revolutionary.

I'm grateful to David House for taking the time to show me his models and explain his ideas; to Paul King of Towncross Engineering and to John King of Precision Windings, both of Bognor Regis. www.oldmodels.co.uk