

W H Rowe Ltd Take Top Industry Award

WH Rowe Ltd, last week won **Component of the Year 2011 Award** in the UK **Cast Metals Industry Awards**.

WH Rowe Ltd aluminium foundry of Southampton, who celebrates 80 years in 2012, has produced a three part cast aluminium bicycle frame for their customer, Empire Cycles to be used in a specialist downhill racing bike.



Empire Cycles having had disappointments with castings in the past had dismissed the casting process as unsuitable for highly stressed bicycle components. This particular bicycle was to be used mainly for downhill racing. "These are highly stressed components due to the high dynamic loading of the frame," said Constantine Theoharis of WH Rowe. "We knew that, using the sand casting process, we could produce components that would not only withstand the stresses but would also save the customer considerable time and money particularly in tooling where start up costs are high."

W H Rowe took up the challenge and got involved in the design of the components specifically to suit the sand casting process because of lower tooling costs and shorter tooling manufacturing times.



It was agreed that the whole bicycle would be manufactured without any welding thus removing the need for special jigs. Only a small tool box would be required to assemble wheels, headset, gear mechanism, suspension components etc. The rider is able to infinitely adjust the frame to his or her own preference without specialist tools.



"This is an excellent set of castings that not only take the process into the bicycle frame market, but also saved the customer money and produced a very stylish and rugged bike," said John Parker, Chief Executive of the Cast Metals Federation which organises the annual awards.

The WH Rowe castings were selected from a final list of three which also included the aluminium 16V, 7.9 L, 1000Hp engine block of the Bugatti Veyron manufactured by Grainger & Worrall and a copper spiral Tuyere, a 215kg casting used in blast furnaces.