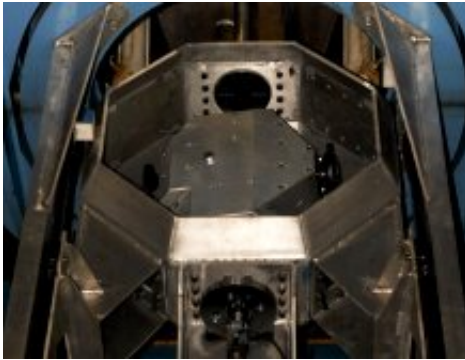


Testing on revolutionary marine energy device begins

December 19 2013



The ground-breaking WITT transmission system

The Whatever Input to Torsion Transfer (WITT) transmission system collects chaotic movement in water, wind, human, animal or vehicle motion and turns it into useable power.

A&P Falmouth is leading a project with consortium of partners WITT, Supacat, University of Exeter and Plymouth University to demonstrate the capability of the WITT [transmission](#) system to supplement ship power generation systems. The Technology Strategy Board funded project will aid the understanding to which extent the power generated will reduce the amount of fuel used, saving money and contributing to the elimination of carbon gases.

The revolutionary WITT device, which has been designed and built by

Supacat over a period of five months, will be tested by the University of Exeter on their novel Dynamic Marine Component Test facility (DMac), generating a performance look-up table. From these tabulated results, it will be possible to identify the type of size of WITT device which will suit a type of ship in a varying sea state.

The device was invented by civil engineer Martin Wickett over a six month period between 2008 and 2009. He built the first WITT transmission prototype from off-the-shelf components and continued developing the design until finally creating a device that could collect all six degrees of motion and turn it into useable power.

The WITT looks like a standard gearbox transmission and has two pendulums on either side driving a set of gearwheels through to a shaft output. The device weighs approximately 100 kilograms, is made from precision engineered components and cast aluminium and is the size of a desk top computer.

The project was awarded a £190,000 development grant by the Technology Strategy Board and remaining funding of £110,000 agreed in kind from industry partners A&P Falmouth, and Devon-based Supacat.

The Technology Strategy Board award for Vessel Efficiency was the first of its kind, and saw University of Exeter work with Plymouth University to produce with WITT on advancing a new patented technology for use in shipping, which is being developed under the project Energy Harvesting Technology from Vessel Motion.

Dr Lars Johanning from Renewable Energy at the University of Exeter said: "Emission from vessels contributing significantly to the world's carbon pollution and this project will provide a significant step forward to develop solutions that make a difference. It shows how inventors,

industry and academia can work hand-in-hand to develop viable products that have a positive social and environmental impact."

Paul Weston, Renewable Energy Technical Manager for A&P Falmouth, said: "This is a very exciting project that can take the six degrees of motion generated by the sea and transfer that wasted energy into usable power. "The device can also be used in all types of movement whether on land or at sea, on a back pack, yacht or a ship. It is a pioneering project that transfers motion into energy and we are delighted to be involved with it."

Joe Wilcox, Head of Marine & Renewables at Supacat, said: "Supacat's involvement in the WITT project represents a significant investment by the company in expanding its expertise in designing and building [renewable energy](#) products. Our design engineering team specialises in translating concepts into products and we have had extensive previous experience of doing this."

Provided by University of Exeter

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