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# October 2021 Distributor Journal



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# Testimonial – Thompson Constant Velocity Coupling (TCVJ) – Babcock Marine Application

#### Overview

We provide Southampton's port operator Associated British Ports with a fleet of Pilot and Harbour Patrol vessels primarily working out of Southampton and Portsmouth, these vessels transfer Pilots to/from visiting ships whilst also maintaining clear and navigable shipping channels. Maintaining to a high standard whilst continually improving the fleet is our uppermost remit and in conjunction with issues, many and varied, generated by our ever evolving need for stress free and economical environments can be challenging......

#### One such case-issue

Noise and vibration is considered to be controllable, to an acceptable level at least, and given, invariably, vessels of this type will produce vibration/noise issues solutions to reduce the effects are often sought. One particular, ageing, vessel (Green Vessel in photo below) was recognised as being potentially harmful regarding current/future noise/vibration levels.

#### **Problem**

Higher than acceptable noise levels within the vessel's wheelhouse, higher than acceptable vibrations throughout the vessel at most operating speeds – source of both problems identified as generating from drive shafting between remotely sited gearboxes and engines, shafting provided with universal joints running beyond design spec angles.

#### What was the solution?

Exploring options available for this application we discovered the Thompson constant velocity coupling (TCVJ see photo below) and after consulting with Steve Hart at Thompson Couplings and taking his expert advice and can-do approach we decided to engineer-in this revolutionary constant velocity coupling whilst also replacing engine drive support bearings.

#### What was the impact?

Remarkable results! The vibration, after fitting the couplings, reduced to negligible with the boat running a lot smoother along with significant noise reduction. Crew note how quiet and

smooth the boat is in operation – i.e. pre TCVJ wheelhouse noise levels were measured at 87 dB (A) post coupling fit 76 dB (A).

### Would you use our product again?

Absolutely – to date the vessel has covered far more sea miles and hours usage than ever before since being that more attractive, maintenance has amounted to periodic greasing of joint bearings and shaft spline, fasteners remain intact.

## Would you recommend Thompson Couplings to anyone else?

Yes! We have used them for the last 2 years now without issue or problem, I would highly recommend Thompson Couplings to any person or company for their product and design/engineering assistance – the couplings have performed over and above our expectations.



