

The importance of proven ship efficiency gains - Silverstream Technologies

There are any number of technologies that claim to provide substantial fuel savings for ships, but how well verified or real these are is often harder to quantify. Silverstream Technologies specialises solely in installing air lubrication technology on vessels and ceo Noah Silberschmidt is able to point to an impressive record of verification of savings by well reputed third parties.

Air lubrication as a concept for ships is nothing new – it dates back some 160 years – but is how Silverstream has been able to apply the concept that is unique. As is demonstrated by a family of eight patents registered in some 60 countries. Silberschmidt told Seatrade Maritime News in a recent interview that its technology uses a very small amount of energy compared to other previous concepts that took three to five times as much energy, and consequently were more difficult to control.



Silverstream has verified fuel savings of in excess of 5% on a chemical tanker, around a 6% net efficiency gain on cruise ships, and for a tanker with a larger flat bottom in the region of 8%.

A proven track record

These are very similar numbers to those claimed by many other technologies in the market – so why should owners invest in Silverstream? The answer according to Silberschmidt is: “A proven track record, proven savings, proven methodology, third party testing and trialing.

“I was sitting there being the founder of a company and five years ago it was difficult to tell the industry that we had now come up with one of the best technologies for saving fuel because there were a lot of other companies with similar claims. But what I have today is sea trails for every single vessel, and I have it proven from Lloyd Register, DNV GL, HSVA (Hamburg Ship Model Basin), Southampton University, Carnival and from Shell.”

This kind of verification is something he believes all companies claiming fuel savings of 5% or 10% should be required to do. “So I think it’s important the industry gets a good solution that will work for them. But I don’t see the point in various technology companies making claims that are not substantiated.”

Global Industry Alliance

This is one of the reasons that Silverstream was a founding member of the IMO’s Global Industry Alliance to support low carbon shipping, which as one of its five main areas of collaboration a focus on energy efficient operation and operational best practices. According to Silberschmidt they are working hard to provide a level playing field for industry players and matrix that will enable people to see how much testing has been done.

While proven savings are a key factor in choosing to invest in energy saving technology so are cost and ease of installation.

Payback period

On cost Silberschmidt declines to give dollar amounts preferring to talk in payback periods, which he says are three years for a cruise ship, and for some vessels can come down to one and half years depending on operational factors and fuel parameters.

In terms of installation the system can either be factored into a newbuilding or done as a retrofit. In the case of a retrofit on the Carnival Corp cruise ship Diamond Princess carried out at Sembcorp Marine in Singapore the work was carried out during a seven day period the vessel was in drydock.

At present the system is in operation on a chemical tanker, two cruise ships and the company has just won an order for its installation on 12 ro-ro newbuilds from Grimaldi. Silberschmidt is now targeting a move into containerships and large tankers such as LNG carriers.

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