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Stabilising Fred.Olsen's 'Bolette'

Genoa-based Pinfabb SRL is a provider of solutions for the repair, maintenance and retrofit of any stabiliser system types worldwide.

The company's core product, PINFABB POSEIDON was chosen by Fred.Olsen to retrofit the existing stabiliser control systems on the cruise ship 'Bolette'.

Pinfabb's POSEIDON system provides analytical data about the stabilisation and suggests the optimal use of the fins. Weather data information is also available to the operator, thus enabling the deployment of stabilisers in a timely fashion when needed.

Fred. Olsen Cruise Lines is an Ipswich UK-based, Norwegian-owned cruise shipping line with four cruise ships in the smaller scale range from 24,000 gt to 62,000 gt, offering destinations worldwide and an attention-to-details services to its guests.

Under this contract, Pinfabb's core undertaking was to -

- Renew the plant using the most optimised method.
- Undertake measures to ensure the longevity of the stabilisers' working condition and avoid disruption time.
- Simplify crew operations.
- Reduce maintenance costs.
- Modernise and digitalise the stabilisers to take advantage of the benefits of remote monitoring, predictive maintenance and energy/CO2 emission reductions.

On board 'Bolette', Pinfabb performed a full upgrade of the old stabilising control unit. This work was executed while the ship was sailing in European waters by two Pinfabb service engineers and with the support of Fred.Olsen's crew.

A new touch screen panel was installed, which replaced the original bridge interface. The new panel provides full information to the operator regarding the real-time ship motion on her roll and pitch axis.

In addition, a new 10 in touch panel was installed on the engine control room (ECR) console.

In the ECR, all the information regarding the stabilisers is displayed, including the machinery's status and the future maintenance tasks to be executed.

System Longevity

The new panel enables system health information and automatic maintenance advice to be at the operator's finger tips to ensure the whole system's longevity, including electronic, hydraulic and mechanical items, to avoid any down time.

A new and compact digital automation unit was installed near the existing hydraulic power unit (HPU). This unit provides the operator with information about the stabilisers' status and enables



Matteo Fabricotti, Pinfabb CEO

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the manoeuvring of the fin locally just by touching two buttons.

Energy savings

As with all POSEIDON systems, optimising the stabilisers' drag is possible, thus reducing the consumption created by underwater friction. This is made possible by using the system under ECO mode.

The data collection performed remotely reported some interesting data, which demonstrated the company's ability to pursue every small detail aimed at reducing CO2 emissions and therefore optimising on board equipment functionality, Pinfabb said.

The company also claimed that the energy absorbed by the stabilisers can be cut by an average 50%, versus the absorption rate of a non-ECO systems operating under the same conditions.

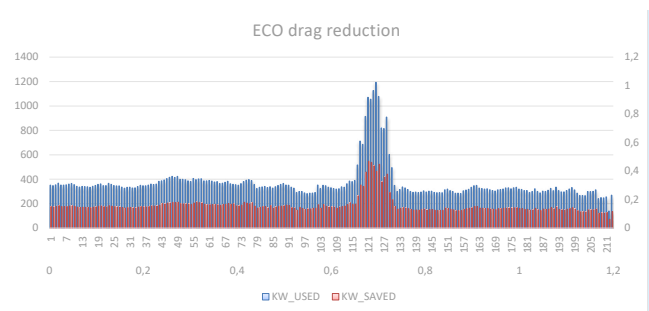
Depending on the on board comfort needed and the dynamic situation, POSEIDON automatically selects different stabilisation modes to preserve shipboard comfort with the most efficient angle of attack, always taking into account the best mechanical system compensation.

This last point is an added value, as it demonstrates a practical example of how an ECO approach can produce a reduction of mechanical stress and of leakage from the tilting piston after the installation of POSEIDON and especially after the integration of the ECO module.

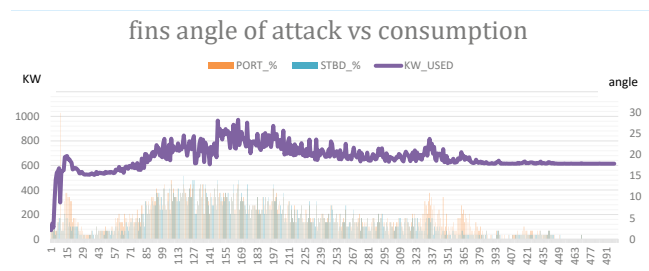
Analysis undertaken thus far on the system's data reported that no significant comfort deterioration was recorded while sailing in ECO mode.

Matteo Fabbicotti, Pinfabb SRL, CEO, commented; "We have been proud and pleased to have Fred.Olsen joining the list of companies where POSEIDON is installed with the aim to digital transform their stabiliser systems.

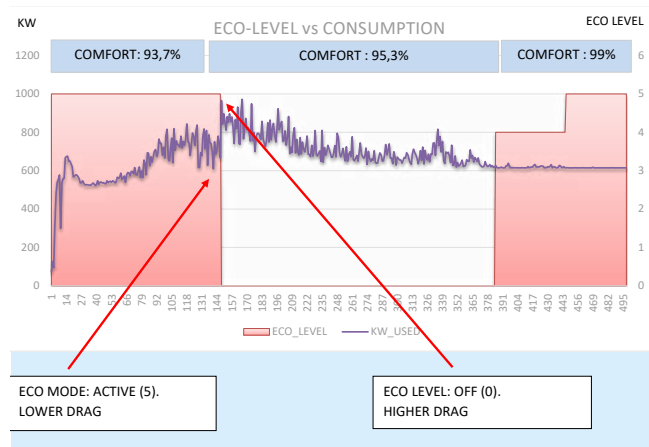
"Working with Fred.Olsen has been a real pleasure as the co-operation between the two companies was very friendly and professional at all levels, from office to ship personnel. All the processes as well, from procurement to installation, has been smooth," he concluded.



Source: Pinfabb



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