MTU simulation tool for optimizing marine engines

Tugnology ‘15 will take place in London on 19 and 20 May. What will MTU be showcasing there? Cyrill Halbauer: At this year's Tugnology conference we will be providing information on our tug portfolio at our own booth. On the second day of the event on Wednesday at 2:40 pm, my colleague Christoph Thielen and myself will be giving the very first presentation of the simulation tool which we have developed to optimize marine engines.

Could you briefly explain how this tool assists tug engine optimization? Christoph Thielen: With this tool, you can visualize the complete ship system. We achieved this by taking individual models of the engine, gearbox, propeller and ship and integrating them in a simulation environment. So we simulate manoeuvres before actually putting them in practice. Besides assisting engine development, this tool can also be useful prior to the commissioning of a propulsion system, when we can make any modifications needed to suit the customer's specific requirements. We can also use it for engines already in service that we would like to optimize.
Looking to the future, which trends do you foresee in tug propulsion technology and how will you be preparing for them?
Cyrill Halbauer: The customer's choice of propulsion solution is very much influenced by emissions directives and life-cycle costs. This has led to a major focus on gas engines and hybrid systems with exhaust aftertreatment. MTU, Damen Shipyards and SVITZER are currently collaborating on bringing the first Reverse Stern Drive tug powered by natural gas onto the market. MTU is developing a new gas engine and is to ship it to Damen in 2016. The market launch is planned for 2018.
From spring 2015, MTU and tugboat operator Fairplay Towage are to test a port tugboat powered by an MTU diesel genset with SCR exhaust aftertreatment. These tests will be the first trials worldwide of high-speed diesel engines equipped with SCR for meeting IMO III regulations.

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