

Doubts surface about efficacy of Energy Efficiency Design Index at shipping meet

Doubts were expressed at the 2nd international conference on 'Ship Efficiency', in which over 200 experts participated, whether the current proposal to implement an Energy Efficiency Design Index (EEDI) is an appropriate tool to cut ship emissions.

Prof. Stefan Krueger of TU Hamburg Harburg, Institute of Ship Design and Ship Safety, discussed the pros and cons of the EEDI currently being debated within the International Maritime Organisation (IMO) working groups.

Prof. Krueger explained that the motivation for EEDI was the current IMO response to the increasing carbon dioxide (CO₂) emissions from shipping. He pointed out that the EEDI philosophy had serious drawbacks and would undermine technical progress. Possibilities of optimising ship design would be extremely limited, he added.

He reminded the audience from 24 countries—many of them representing shipping companies—that the CO₂ output was proportional to fuel consumption. All measures to decrease fuel consumption would also shrink the CO₂ footprint.

His pragmatic solution for improving ship efficiency and reducing the CO₂ problem was to adjust the fuel prices accordingly.

IMO, however, opted for an EEDI, which expresses the impact to the environment from shipping versus the benefit to the society.

Prof. Krueger referred to the baseline definition, which depends solely on the deadweight of the ship and the ship type. This led to ships being "efficient" when they were big and slow.

To make the Index work, he suggested replacing the deadweight with payload and to improve the baseline concept by taking into account physical principles.

Otherwise, there would be no encouragement for designers to develop more efficient products that would result in significant reductions of fuel consumption.

A total of 17 presentations showed the wide range of complex technical possibilities to increase a ship's efficiency and to improve measures to protect the environment.

The conference ended with the view that there was no contradiction between economy and environmental aspects. New ships can be designed efficiently and, at the same time, be environmentally-friendly.

The next conference on ship efficiency will take place in 2011.

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