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## Fuel, ballast and enviro concerns addressed at technology conference

Ship efficiency is a question of perspective', this was the general theme to a two-day conference of the German Society for Maritime Technology last week. Seventeen presentations illustrated how commercial sea going ships could be designed, equipped and operated to burn less fuel. Eco-friendly Dr Hermann J. Klein, president of the German Society for Maritime Technology pointed out in his introduction: 'Shipping is the most ecofriendly means of transport. The public image, though, is somewhat different. Rising fuel prices, increasing emissions and the continuous lack of well-trained staff hit the news on a daily basis.' As engineers, it is not only our task to set this record straight, but to convince: by developing intelligent and efficient solutions, by making shipping both profitable and environmentally compatible.'

### Oil prices

Rising oil prices and strict international maritime rules call for a continuous optimization of ship design and operation. Efficient power generation, alternative marine fuels and modern construction will help to reduce emissions substantially, he said. The conference was subdivided in three thematic topics on ship operation, ship design, future fuels and efficient power. In the latter division, Peter Nielsen from Wallenius Marine AB in Stockholm pointed out, what was relevant for a shipbuilder and ship owner in respect of eco-friendliness. Objectives like increased capacity, reduced fuel consumption, increased safety as well as improved working conditions and minimised environmental impact are the predominant aspects, when planning a new vessel, he advised. However, Prof Dr Horst Rulfs, Technische Universität Hamburg-Harburg, predicted a further deterioration of fuel quality, a higher contamination with burnable waste products.

### Cheap fuel

Charterers tend to purchase always the cheapest fuel which has to be processed by cost oriented designs of fuel systems. The increasing incompatibility of different fuel batches added to significant adjustment problems in engine management. Stricter environmental standards on sulphur contents require different types of fuel in specific water regions. Engine inspection and maintenance routines would also have to be adjusted to mitigate any adverse impact on the engine that comes from consuming different types of fuels, he said. A holistic approach helps ship operators plan and coordinate the demands of environmental regulations with other operational concerns to bring about smooth, safe and cost-effective vessel operations.

### Intertanko

Timothy Gunner, Technical consultant for Intertanko, explained the influence of environmental legislation on the efficiency of ship operation. His personal views were based on the necessity to protect the maritime environment. International regulations should meet long term goals. Level field They should be achievable and consistent to allow for planning and to allow for operational practicalities. He insisted that international regulations should maintain a level playing field for all ships worldwide. Regional regulations should be avoided as they create many operational and planning difficulties and uncertainties. He questioned some of the currently discussed conventions such as the ballast water regulations or oil pollution regulations. There are inadequate reception facilities for oil slumps in many ports. Summing up

the conference Dr Hermann J. Klein underlined the necessity to meet every second year to monitor the progress made in improving ship efficiency and reducing the environmental implications of shipping even further.