Power limitation and the EEXI

Part of the IMO’s strategy to reduce CO₂ emissions will involve power limitation on existing ships. Join our webinar on 11 March and have your say on how this would affect your vessel.

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RINA IMO Committee

The Nautical Institute supports the IMO greenhouse gas strategy to reduce CO₂ emissions from shipping by at least 40% by 2030 and to pursue efforts towards a 70% reduction by 2050. Part of this strategy will involve power limitation on existing ships, governed by the Energy Efficiency Existing Ships Index (EEXI), of which the operational details have yet to be confirmed – but we need to bear in mind that human life and the environment are both threatened in the event of an accident. That should not be overlooked.

Who has stood on the bridge wondering if the next large wave will knock the ship dangerously off her hove-to heading? Or perhaps, like me, you were entering a small anchorage on a fast-flooding tide, needing to turn your capsize OBO hard to starboard to drop the anchor to prevent running aground?

In my case, the anchoring manoeuvre was successful – but that was because I had access to emergency full ahead (and astern) and it was not interrupted. Even if the engineers had moments of discomfort, their skill in overseeing the movement, aware of my predicament, was appreciated.

That was 35 years ago. The engine was, by modern standards, large. It consumed a large volume of fuel. Large motor ships then had nine or ten cylinder engines. The same ships now have engines with five cylinders or fewer. They consume a fraction of the fuel, are more efficient at converting the fuel to power and in the process are more environmentally friendly, not to mention the financial advantages.

More recently, environmental issues have squeezed the power issue yet further and the most recent considerations at IMO have sought to reduce pollution by improving the quality of fuel. There are also proposals, however, to limit power by introducing devices of interruption at the top end of that supposedly available to the Master. Increased automation may already have distanced engineers from being able to provide direct control if needed at short notice.

Mariners are likely to be uncomfortable with such limitations. Engineers likewise. It is not difficult to envisage unintended consequences. It is widely accepted that carbon throughput is an issue that must be addressed but safety must also be carefully considered.

Currently serving mariners and engineers may feel frustrated by controls that could introduce unacceptable delays to actions needing an immediate response. It is possible that such detailed insight has not reached those responsible for design, building and regulation of ships. Shipmasters and chief engineers have previously been out of reach and their opinions have rarely been sought. It need not continue that way.

The potential for disconnect between the operational front line and the international committee room could, with today’s improved communications, be reduced significantly, but it needs recognition and determination, including from those at the forefront of operations, to bring about change. Regulators cannot act pragmatically unless reliable communication is established, and that requires feedback from those best placed to provide it.

The NI and Royal Institution of Naval Architects have been collaborating closely to achieve some influence on the issues raised here but we need up-to-date feedback from those ‘at the sharp end’. With webinars and other digital media, professional institutes stand a much better chance of obtaining current and valid views. Please join our webinar on the EEXI and let us know your views. In order to make a difference, we must know what that difference should be.

Practical effects of the EEXI – webinar
March 11, 0800-0900 GMT
Join in and have your say!