

EMPA RECOMMENDATION ON USE OF SOFTWARE OR MECHANICAL-BASED ENGINE OR SHAFT POWER LIMITERS

Introduction

The utilisation of software or mechanical-based engine or shaft power limiters on ships, while playing an important role in reducing the level of vessels greenhouse gas (GHG) emissions, has raised concerns among the maritime pilot community regarding the impact on vessel manoeuvrability due to the possible inability of vessels engines delivering full engine power within an acceptable time limit when advised by the pilot in order to safely execute a manoeuvre.

The introductions of this devices originated from the implementation on November 1, 2022, of the amendments to the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex VI, and the need to comply on January 1st, 2023, with the requirements for Energy Efficiency Existing Ship Index (EEXI) and Carbon Intensity Indicator (CII).

To comply with EEXI requirements, many ships have retrofitted Shaft Power or Engine Power Limitation (SHaPoLi/EPL) systems. The former being achieved by load-limiting/automatic acceleration limiting software programs, or mechanical-based limiters (governor) and the latter by electronic systems only

Recognising the challenges posed to maritime pilots in manoeuvring ships with reduced power, compromising the safety and efficiency of the pilotage service this recommendation outlines key considerations and strategies to address these challenges.

Consideration

Taking into account:

- The safety and efficient flow of maritime traffic.
- The protection of the marine environment, the ship, its cargo, and port infrastructure.
- The urgent need to deal with climate emergency.
- The crucial role of maritime pilots in the maritime industry and the need as individuals to aim for a better world, not just for us, today, but for future generations.
- IMO RESOLUTION MSC.137(76) Standards for Ship Manoeuvrability.
- IMO Resolution A.601 (15) Provision and Display of Manoeuvring Information Onboard Ships.
- The International Convention for the Prevention of Pollution from Ships (MARPOL) Annex VI.
- European and international regulations that aim for GHG emission reduction in our sector.

Policy

- The role of EMPA is to facilitate the exchange of information between its members to continuously improve the professional and technical proficiency of Maritime Pilots in its Member Associations, Pilots within the EU, and in neighbouring countries.
- EMPA aims to assure the safety of all Maritime Pilots in the EU and neighbouring countries by increasing the safety and efficiency of navigation, thereby enhancing environmental protection from ship-borne pollutants.
- EMPA strongly defends and advocates that Pilotage as an essential and unique service to the shipping industry, can only be performed in an environment free from competition.
- EMPA aims to work at the forefront of our profession and collaborate with all stakeholders.
- EMPA recommendations offer practical advice, drawing from its members' collective knowledge and experience, to be read in addition to local, national, and international regulations. These recommendations provide information to Pilots, shipowners, and Captains, advising also, stakeholders that directly or indirectly impact the maritime industry.
- EMPA recommendations should be read in conjunction with equipment instructions and manuals. These recommendations are to support training, not replace training and are not to be interpreted as conflicting with local, national, or international regulations.

EMPA Recommends:

- Masters are reminded before embarking a Pilot, that main propulsion machinery must be available to immediately respond to the full range of manoeuvring commands as per the Pilot Card and that any software or mechanical based limiters be capable of being overridden immediately upon request of the attending Pilot.
- During the MPX information should be provided to the Pilot on the type of limiter/governor being used and how it affects the ships manoeuvrability. With the permission of the ship's master, if the vessel cannot reach sufficient speed for the prevailing conditions during the passage, the power limiter/governor should be overridden.
- Under circumstances where disengaging a power limiter or governor is difficult, it is recommended that additional towage requirements be considered.
- It is paramount that ships masters, officers in charge of navigational watches, and pilots understand:
 - Which type of limiter or governor is deployed. Beware that some governors may take considerable time to be override.
 - **Masters and crews are not restricted by regulation from exercising judgment to override the system, ensuring access to power reserves when required for safety of navigation purposes.** These systems are designed with override functionality and that **temporarily disabling the system** to access full design power **is not a MARPOL violation**. The International Maritime Organization explicitly allows for overriding the system to ensure the safety of the ship, and the authority of the master/officer on watch to do so should be clearly laid out in the Safety Management System (SMS)
 - **Masters and shipowners should amend the wheelhouse poster and pilot card after modifying or converting the ship, which may alter its manoeuvring characteristics or extreme dimensions. The EPL/ShaPoLi limits the power availability of the vessel and its manoeuvring characteristics.**
- Pilot Cards and the Safety Management System (SMS) shall be up to date and referenced for information including:

- The Pilot Card should unambiguously identify if a power limiter is engaged.
- Procedures for overriding power limitation systems should be identified.
- Time required for overriding the ships limiter or governor (i.e., accessing unlimited (design) power reserves).
- The ship's maximum unlimited (design) power.
- The ship's power when limited.

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