

Seemp - Deadline is near, Goal is high

As often happens in Shipping, new buzz words are always popping up. SEEMP is one of them. With the deadline uncomfortably near, it seems that there is much to be done about it.

SEEMP (Ship Energy Efficiency Monitoring System) will be mandatory for all vessels at the first renewal or intermediary survey after January 1st 2013, with the objective set by MARPOL to reduce the global carbon emission. As carbon emission is proportional to fuel burned, SEEMP will focus on minimizing fuel consumption. If carried out properly it can improve the energy efficiency and minimize fuel expenses on vessels. Proper handling, naturally, poses two parallel tasks: ship specific and fleet. Both are important and should be dealt with.

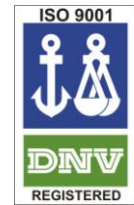
SEEMP should include the following components, on a ship specific basis:

1. Planning – Status and expected improvement.
2. Implementation – Defining tasks and assigning personnel.
3. Monitoring – EEOI (Energy Efficiency Operational Indicator) and Data collection.
4. Self evaluation – Evaluating the effectiveness of the planning and implementation, and improving it.

The above components will need continuous update on each reiteration, in order to indeed improve the energy efficiency. The first two items are probably the most difficult, least straight forward and involve time and expense. To decide on possible improvements, the vessel in question must be studied and analyzed. Performance should be compared at various parameters (trim and draft, for example). Data on fuel consumption at various speeds should be accumulated, and calculations should be made to decide on best speed for minimum fuel consumption. Engine condition should be monitored closely to ascertain also minimal fuel consumption, and so forth. However, in order to achieve the SEEMP goals and indeed reduce the global carbon emission, those two components are the most important tasks.

Calculating the EEOI is the easy part, however not less important. It involves “only” gathering of data from each ship and calculation of the EEOI parameter. The EEOI calculations take into account the type of fuel used, as different fuels have different carbon emission, and the amount of

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fuel used for a certain cargo and distance. Different types of voyages get different marking, as ballast voyages do not have any cargo and consequently emit more carbon, and certain types of voyages such as SAR (Search and Rescue) should not be included in the calculation. The calculation can be easily done by any Excel sheet, but a free EEOI CALCULATOR is available from Totem Plus and can make life easier for those who prefer to use it. To get a free copy the reader can enter www.TotemPlus.com. The program can be used for all types of ships and fuels, data can be saved separately for each ship for any required duration, and consequently the last component above - self evaluation – becomes easy as the EEOI can be compared from one period to the other or from one sister ship to the next.

Totem Plus has the EEOI calculator as part of IMACS, the automation system that is one of the Totem Plus leading products. IMACS can help achieving SEEMP goals in several ways. The automation system includes smart Fuel Efficiency modules, with comparison of daily consumption from flow meters and tanks, presentation of max and min consumption for same RPM, ballast quantity carried and more. It contains voyage fuel planner and analysis, comprehensive fault and data analysis from history, multi sensor analysis to ascertain optimal performance, etc. More on the system can be seen in www.TotemPlus.com.

A lot of work needs to be done in order to achieve MARPOL goals on fuel consumption. Cleaner environment is a common goal to the community, with benefits to all of us. Shipping companies that will make the effort will save fuel which, with today fuel prices, can be financially significant. Totem Plus is proud to be a small part of it with the Free EEOI Calculator.

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