GEARs
GHG Emission, Authentic Reporting Sys'

User manual
(EEXI)

March 2021

KR
KOREAN REGISTER

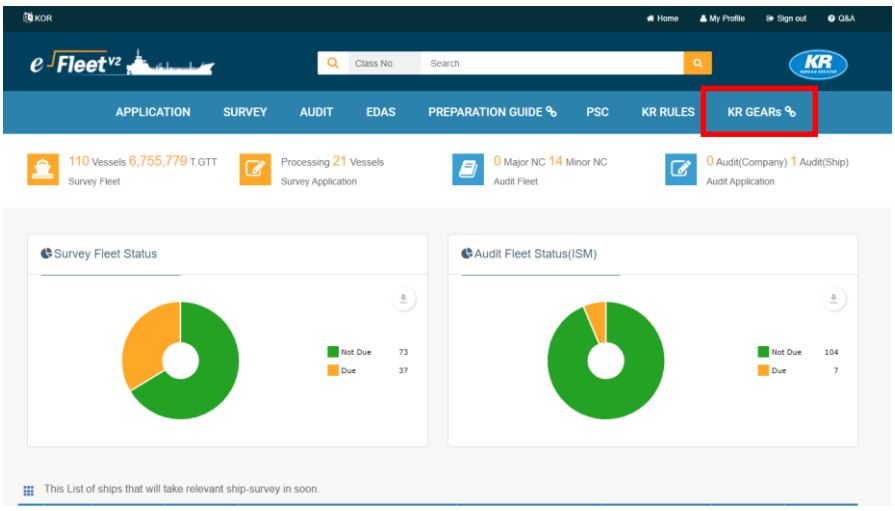
1. Function composition

The contents of KR GEARs EEXI program are implemented in three main functions as shown in the table below.

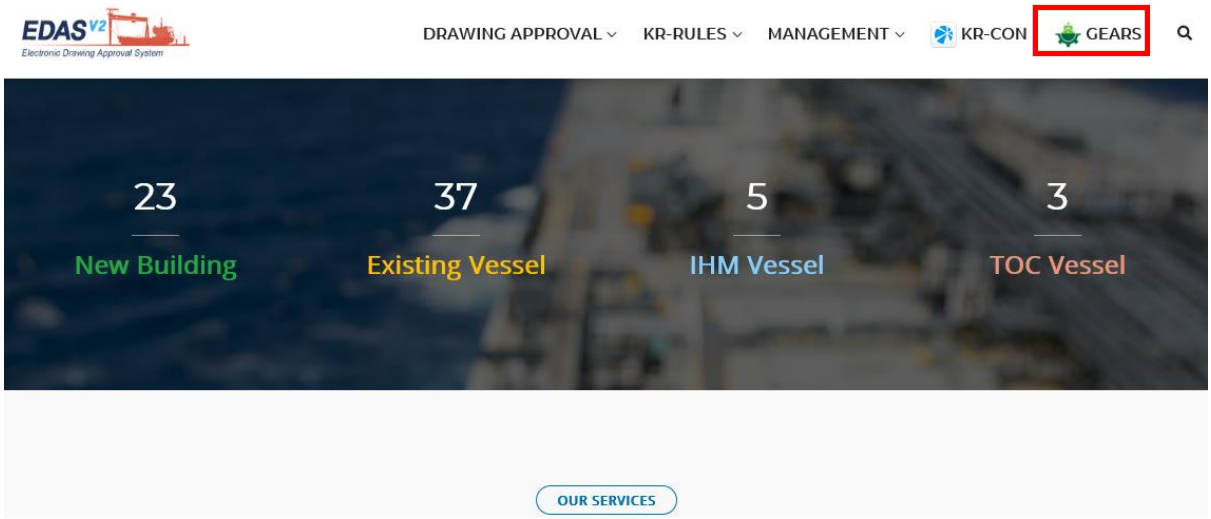
Function	Details
Ship Particular	• Create basic information of the ship and link necessary data when calculation EEXI
Ship Speed	• Calculate ship speed at 75% of MCR according to the ship's speed-power table, and configure it to be graphed. • If there is no speed-power table, the speed calculation is derived according to the alternative method according to the MEPC 75th result
Calculation	• Calculated attained and required EEXI value • Check the result value used for calculation • Input the necessary data for application of dual fuel or correction factors

2. Login (https://gears.krs.co.kr)

1) If you have an KR E-fleet (for Ship Owner) & KR EDAS (for Ship Builder or Designer) registration account, you can log in through the corresponding ID/PW. If you don't remember your E-fleet & EDAS registration account, please contact decarbonization@krs.co.kr.

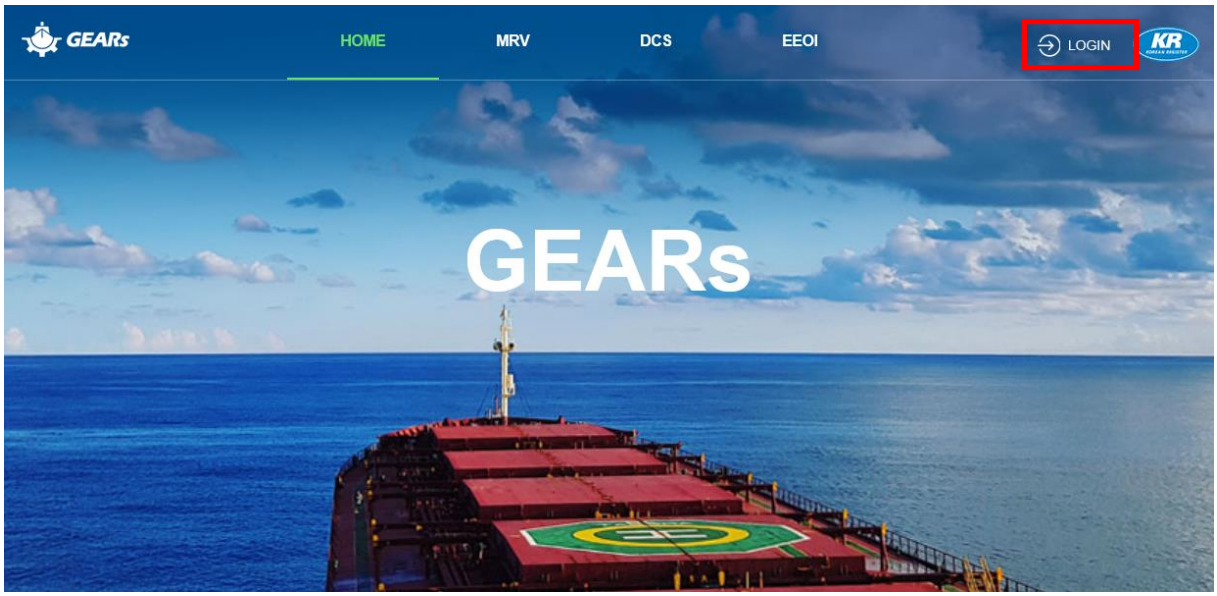


KR e-Fleet Main

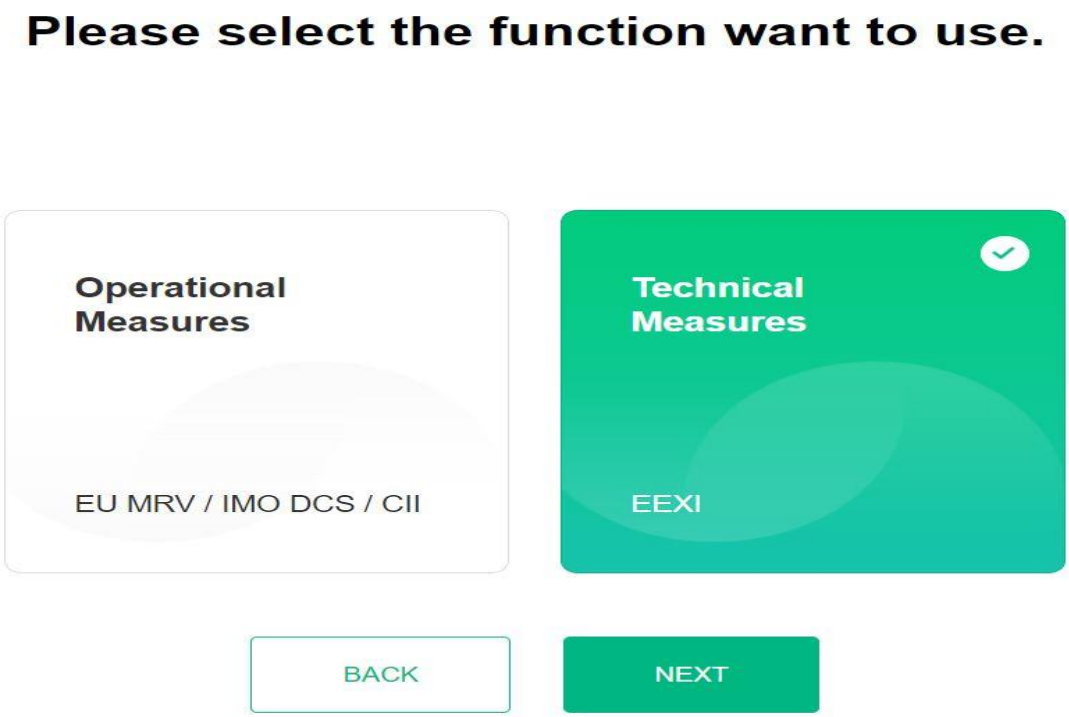


KR EDAS Main

2) If you don't have an KR E-fleet & KR EDAS registration account, you can create an ID/PW by sending the request E-mail to decarbonization@krs.co.kr. And then you can use KR GEARs after login.

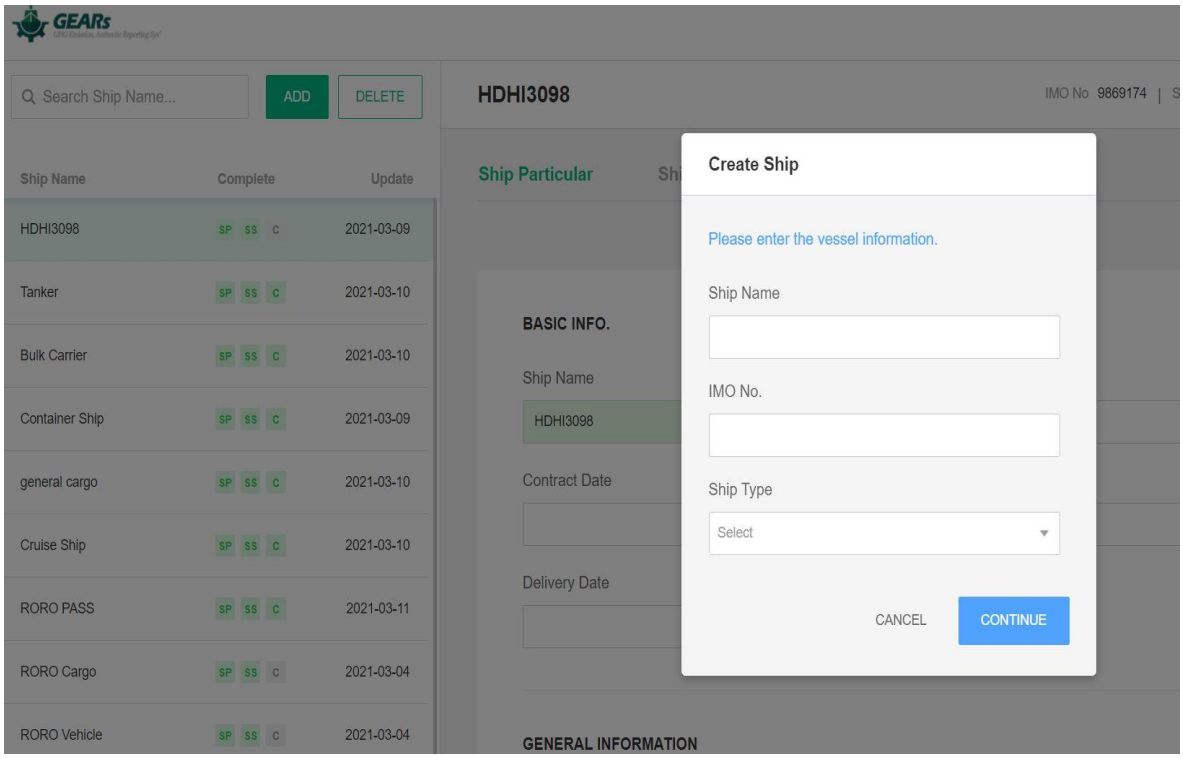


3) After log in KR GEARs, select the EEXI function and click the NEXT button

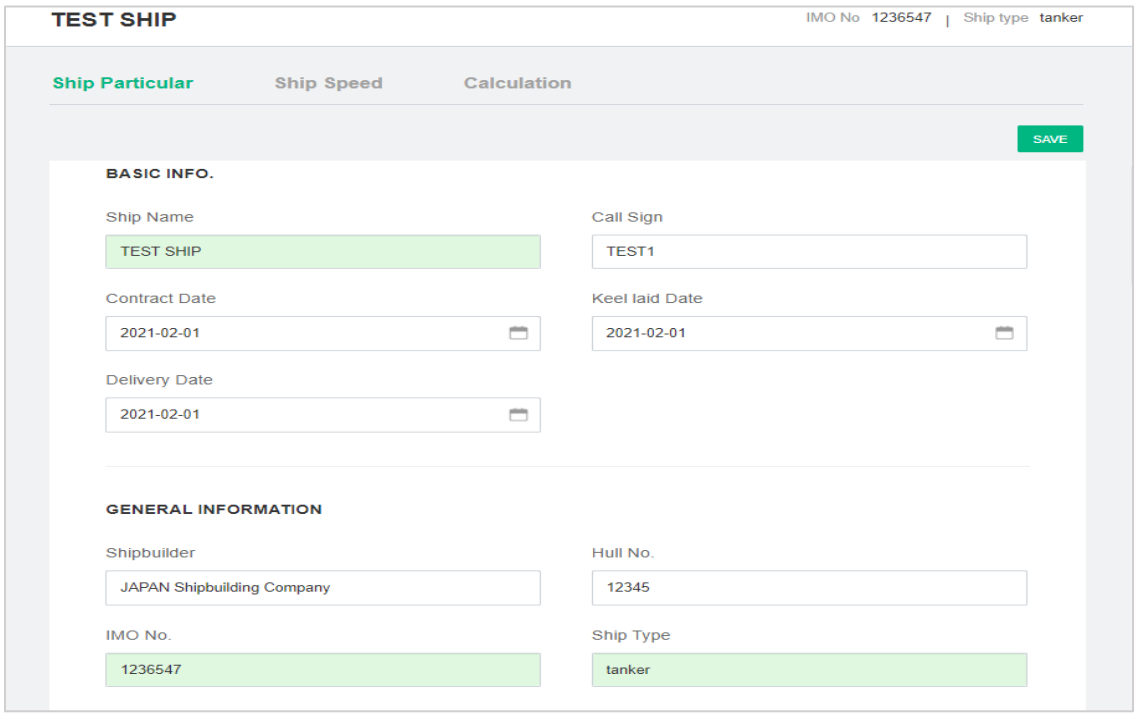


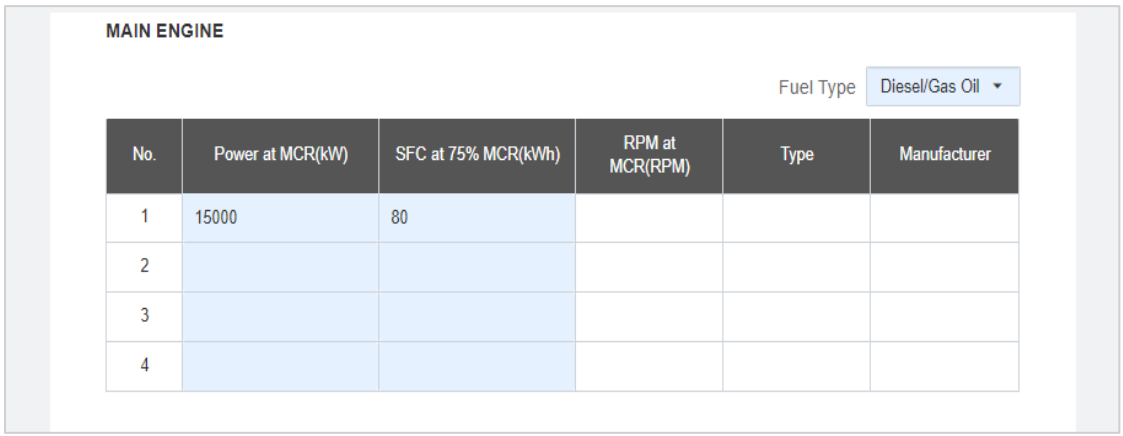
3. Create a new ship / Ship Particulars

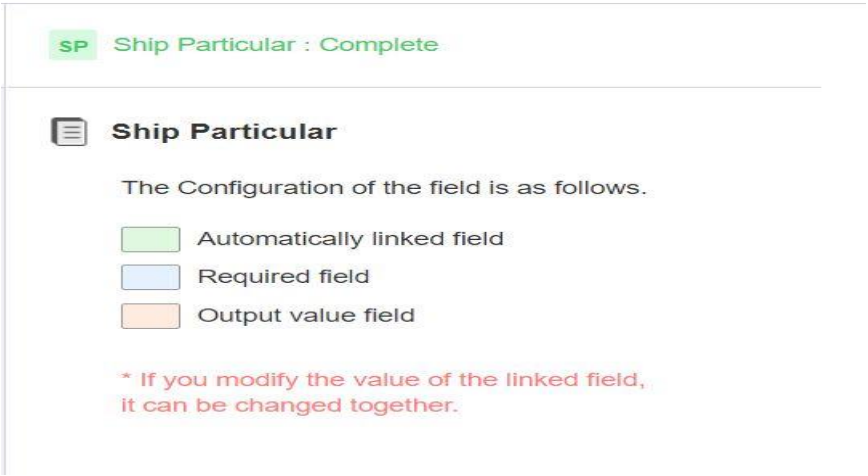
3-1) Click the ADD button to create a new ship



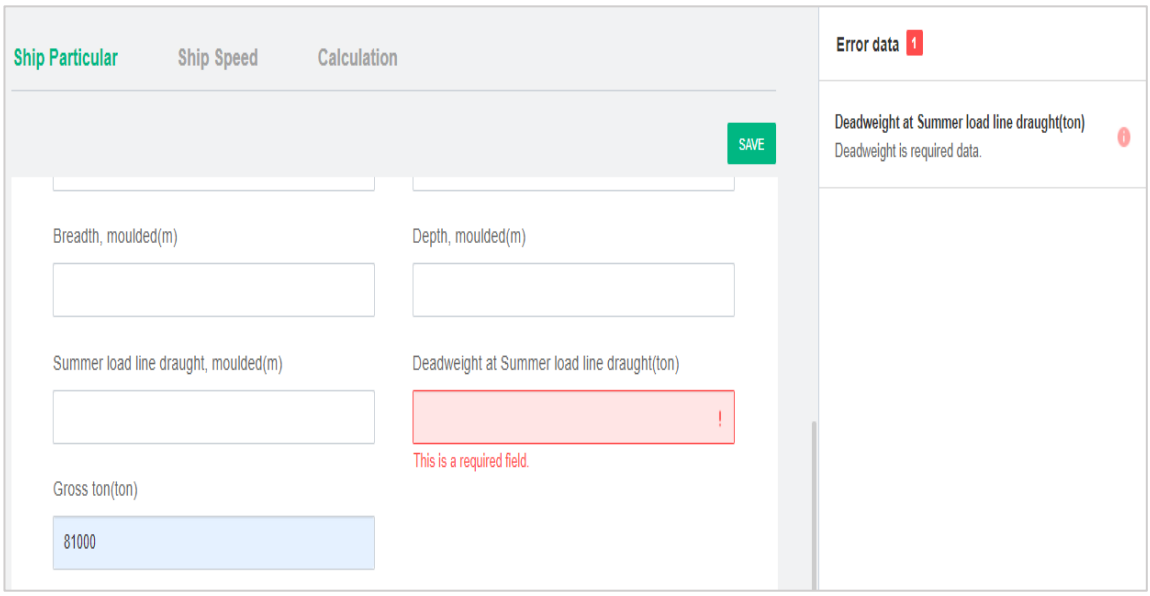
3-2) Enter the ship's basic information. The green field is an automatic linkage value, and in the Ship particular page, the value entered when creating a ship is linked, and the blue field is a required data value, which is a required value for EEXI calculation



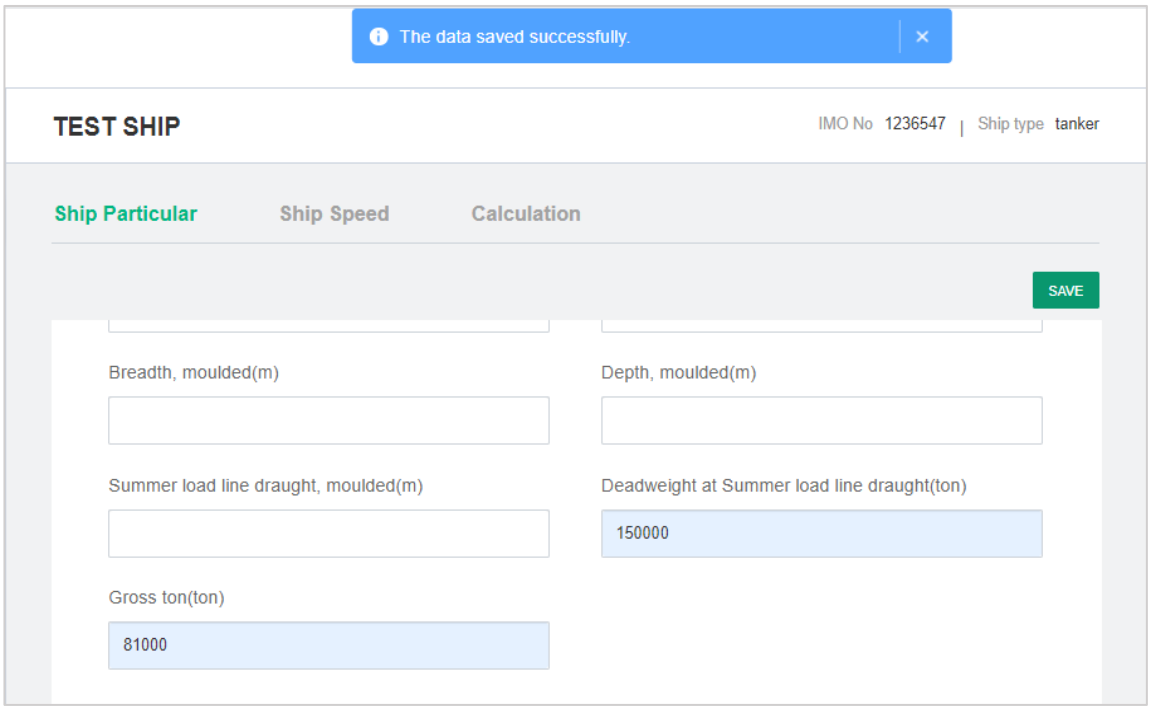




3-3) If you click the SAVE button without input the required data, it shows the error

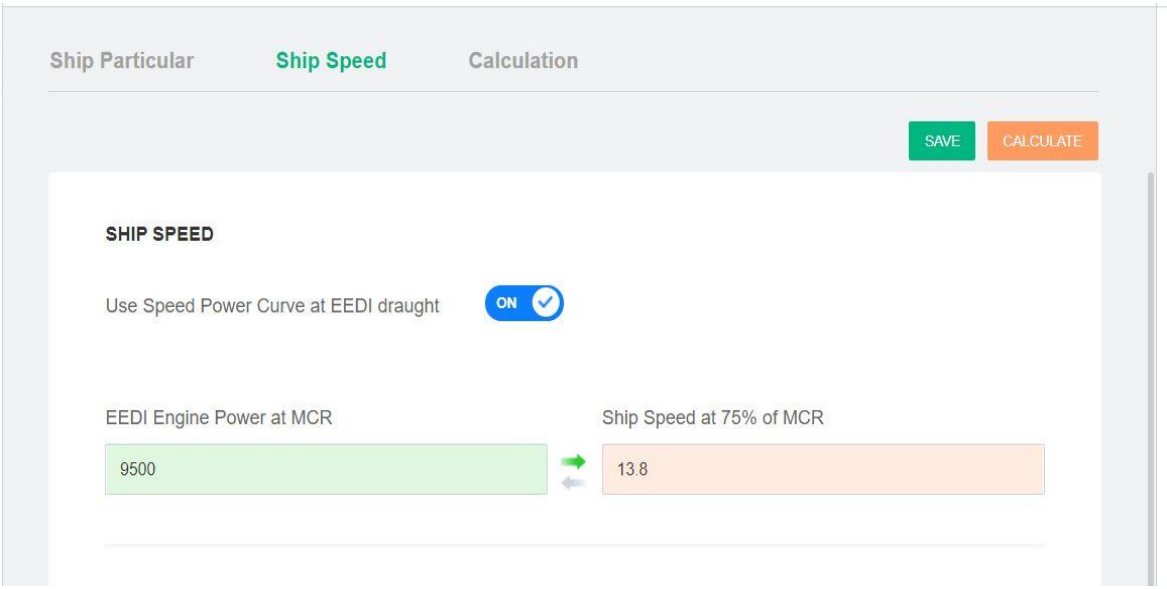


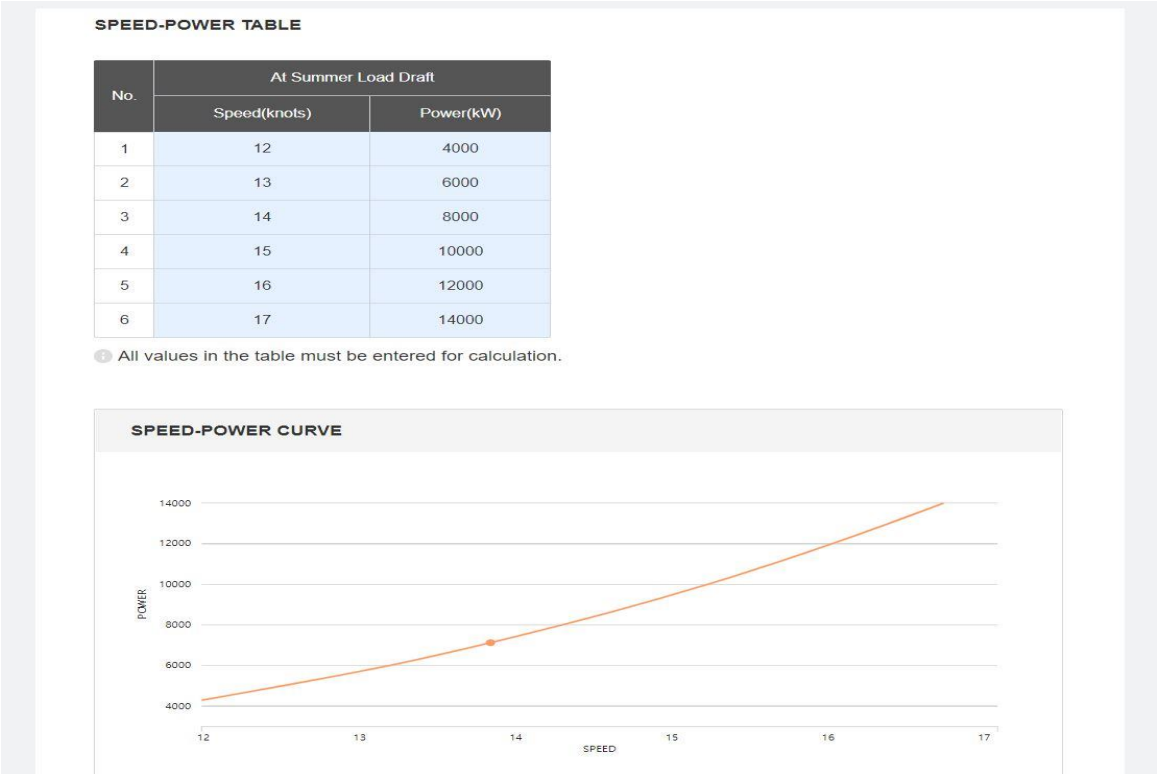
3-4) If you input all the required data and press SAVE, you can move to the next tab with a message "The data saved successfully"



4. Ship Speed

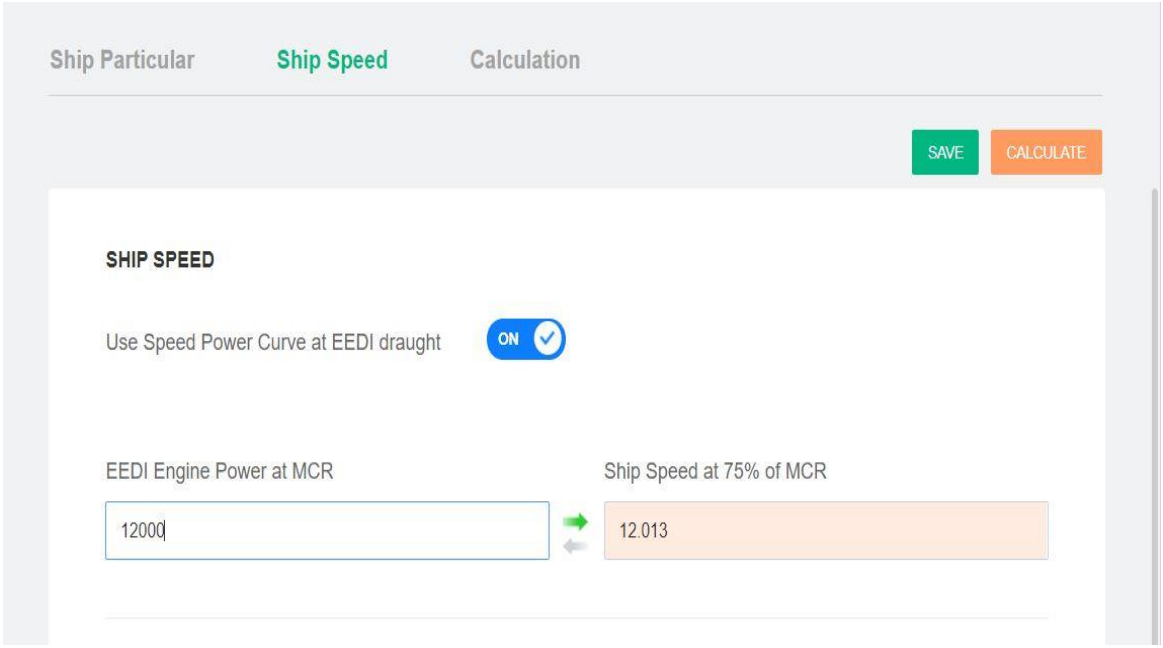
4-1) If you input the speed-power table with Use Speed Power Curve at EEDI draught enabled and click the calculation button, the ship speed is automatically calculated and displayed in the red field with speed-power curve

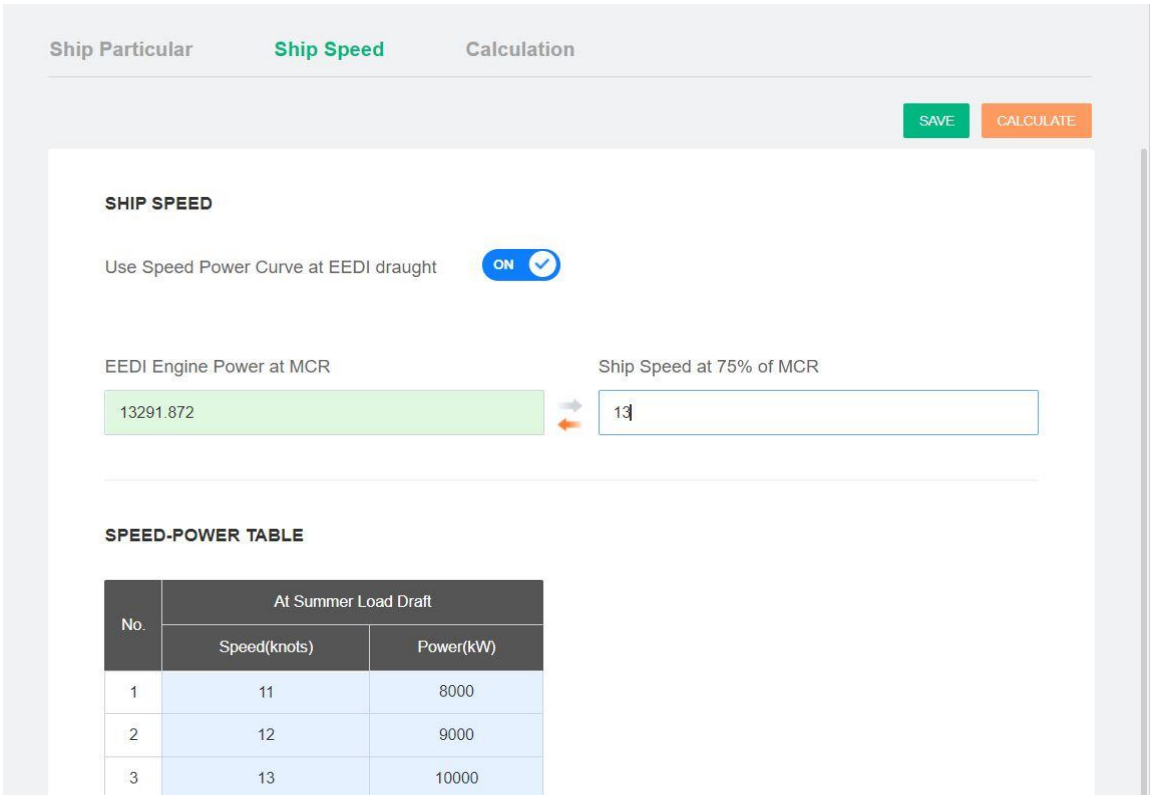




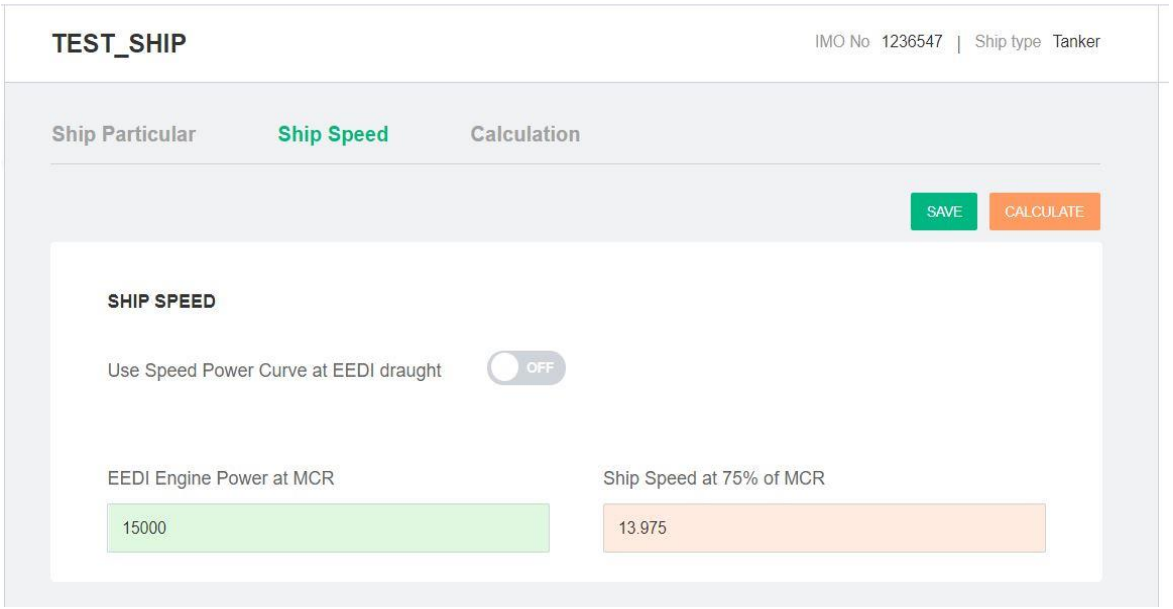
4-2) When the Use Speed Power Curve at EEDI draught is enabled, speed-power values entered, MCR power can be adjusted, and the corresponding speed value can be calculated by pressing the arrow

(Conversely, if you press the arrow after adjusting the speed, the corresponding power value can be calculated)

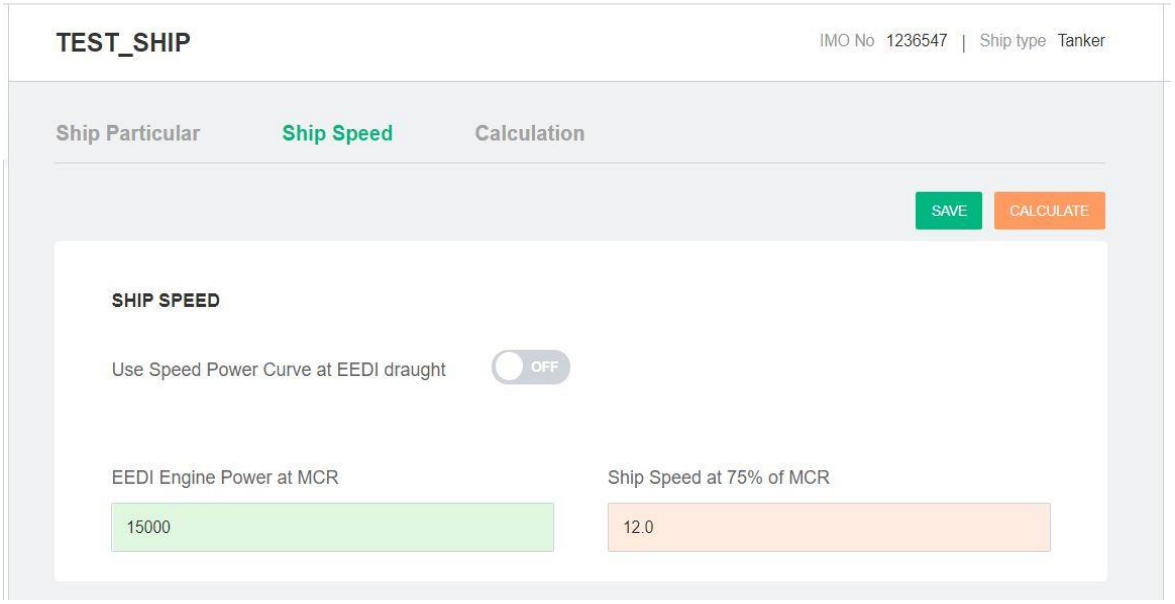




4-3) When the speed-power table is not used, click the calculated button while the Use Speed Power Curve at EEDI draught is disabled, and the field displays the speed value calculated using the alternative method according to MEPC 75th result

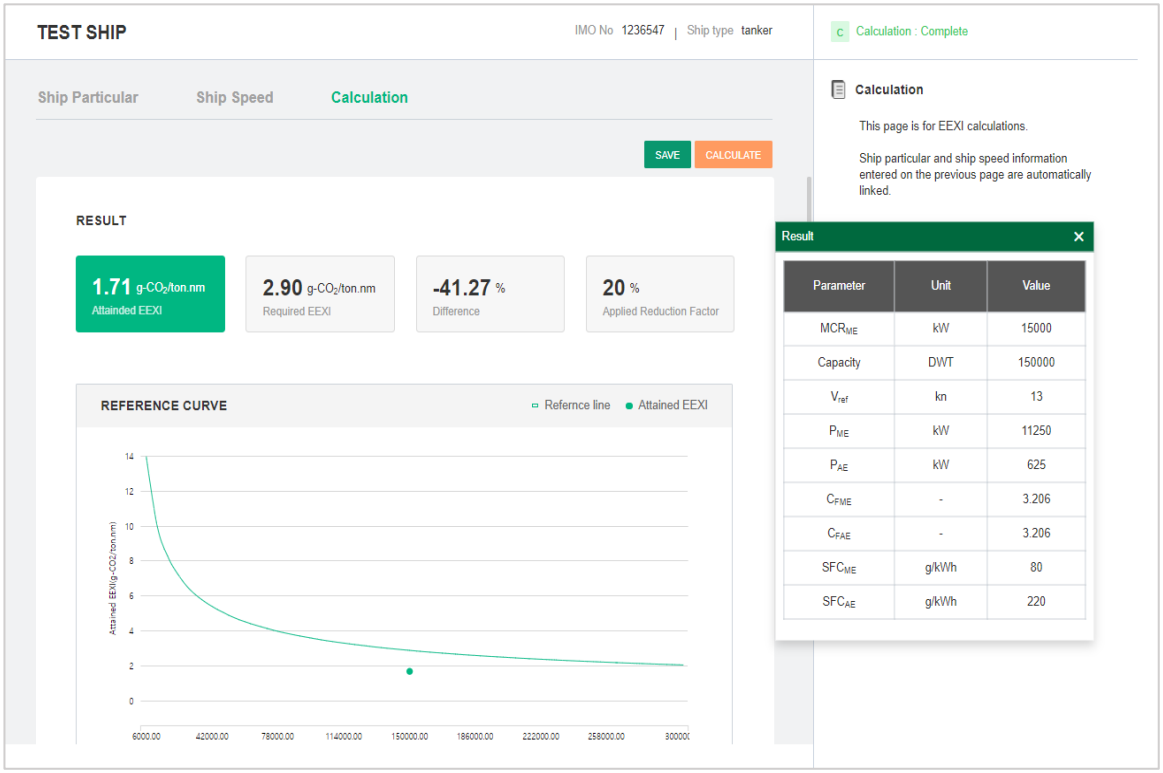


4-4) If the user knows the speed value, you can directly input the speed value manually

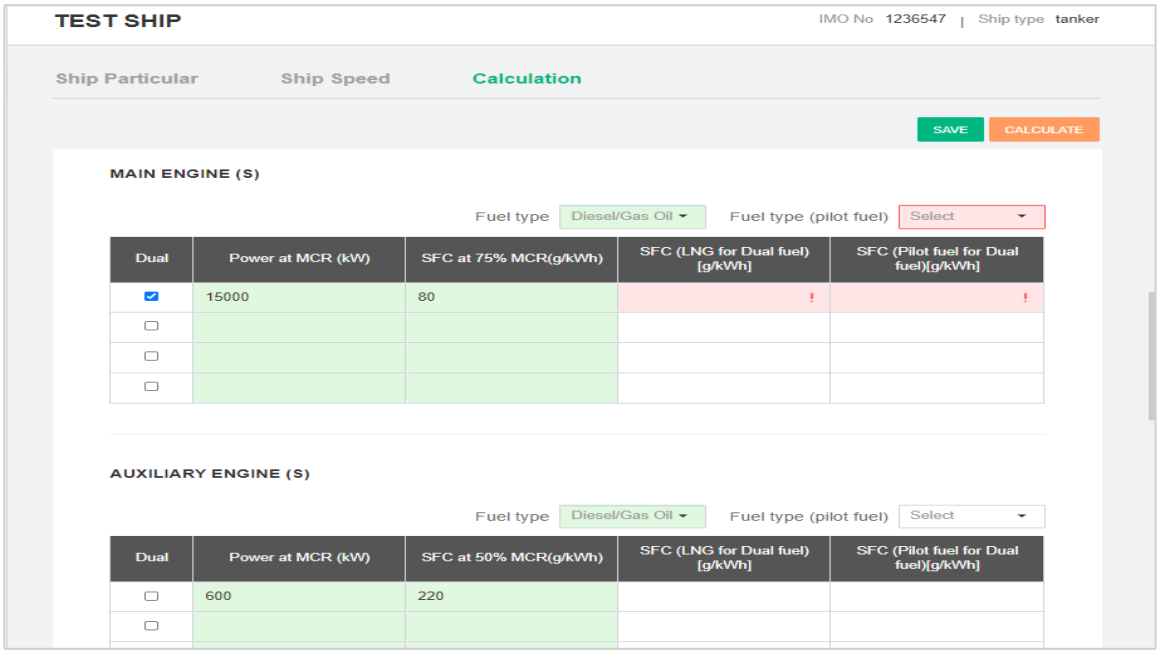


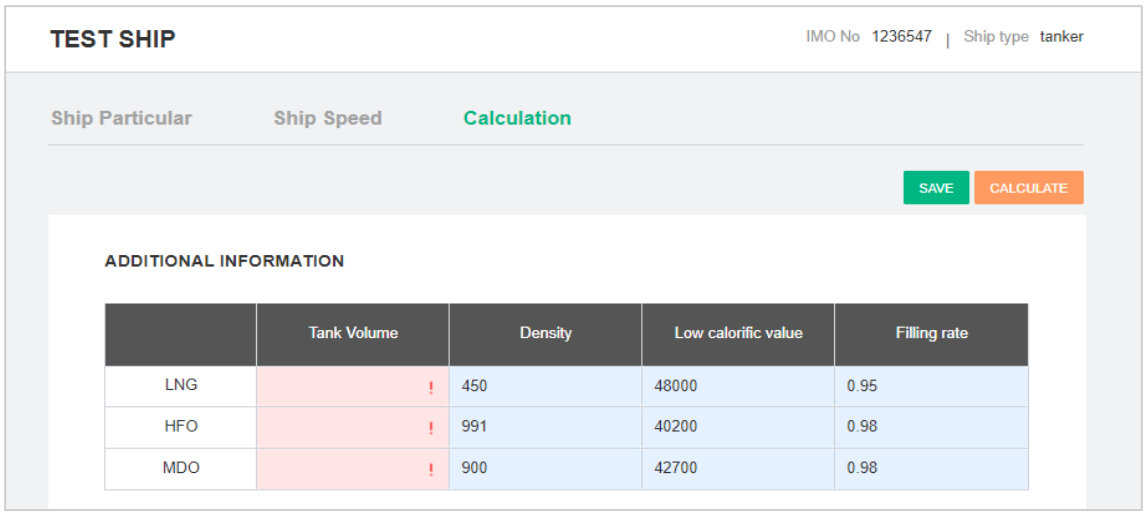
5. Calculation

5-1) When you click the calculate button, the attained and required EEXI value is calculated through the information entered on the Ship Particular / Ship Speed tab, and the result used in the calculation is pop-up

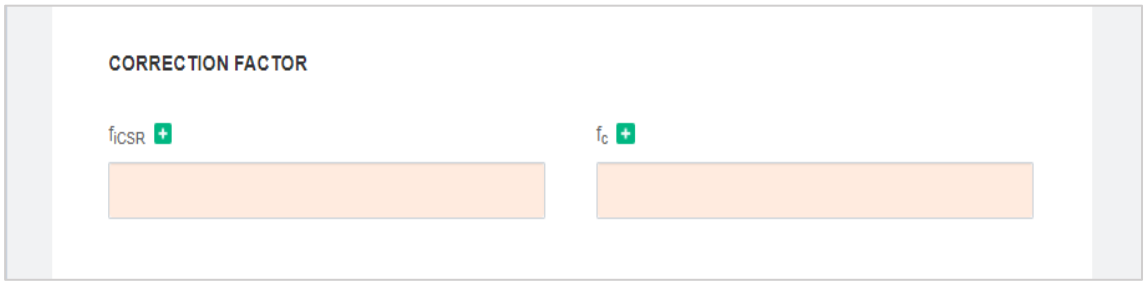


5-2) Check the Dual checkbox in Main Engine / Auxiliary Engine, values that were not required data become required data, indicating data entry, and creating an additional information window

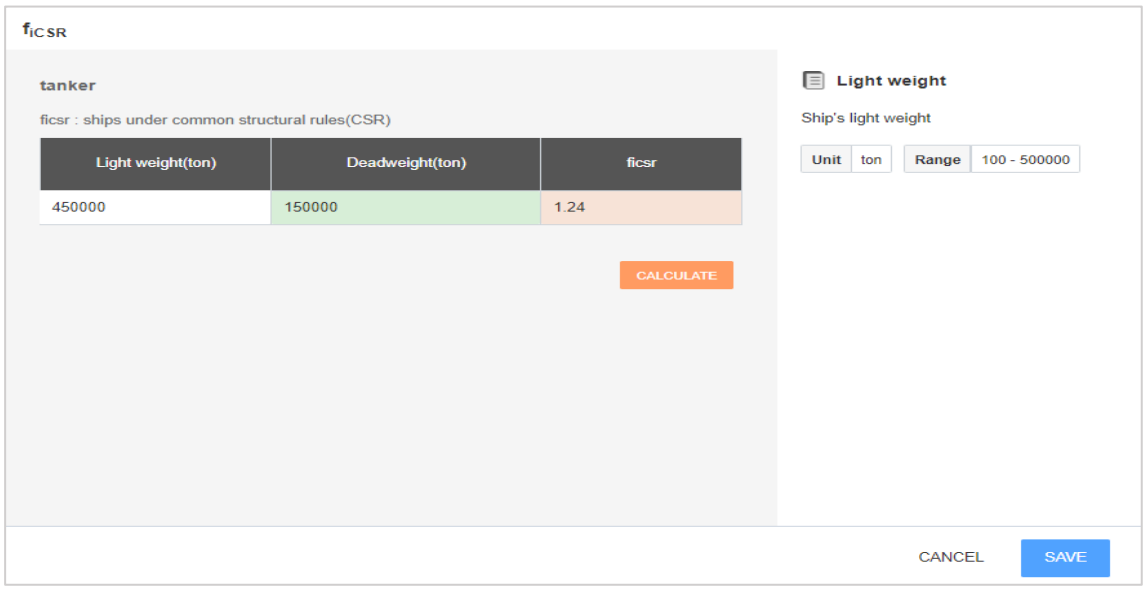




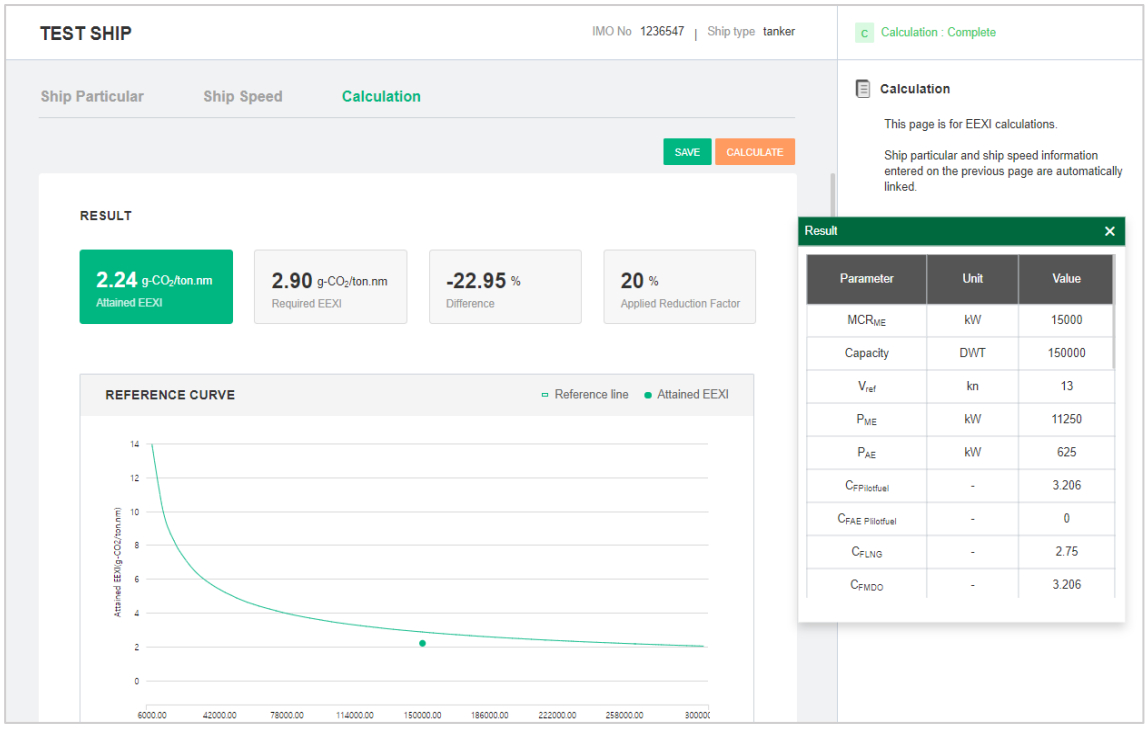
5-3) At the Bottom of the calculation tab is the value of the correction factor for a ship



5-4) If you click the +button next to the correction factor, a window where you can calculate the correction factor appears. After input the required data, press the calculate button to automatically calculate the correction factor, and click the SAVE button to save the calculated value



5-5) If you save all the additionally input data and click the CALCULATE, the values are reflected and EEXI is re-calculated



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