

Title (en)
SEA CHEST COOLER COMPRISING AN INTEGRATED ANTIFOULING SYSTEM

Title (de)
SEEKASTENKÜHLER MIT INTEGRIERTEM BEWUCHSSCHUTZSYSTEM

Title (fr)
REFROIDISSEUR DE CAISSON DE PRISE D'EAU DE MER AVEC SYSTÈME ANTISALISSURE INTÉGRÉ

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Abstract (en)
[origin: WO2009153251A2] The invention relates to a sea chest cooler on ships and offshore platforms, comprising an integrated antifouling system for killing barnacles, mussels, and other fouling organisms by means of an overheating process that can be regularly repeated. The aim of the invention is to design a sea chest cooler in such a way that a simple device can automatically protect the sea chest cooler (16) against microorganism fouling both in the actual cooling mode and during a standstill by continuously overheating a defined number of heat exchanger tubes (20) without interrupting the cooling process, if possible using waste heat from the cooling water. Said aim is achieved by arranging the heat exchanger tubes in a circular manner in special sections of the sea chest cooler (16) such that hot water is supplied to individual circular segments of the tube bundle during or outside the cooling process by means of a mechanical device. Said thermal antifouling system (TAS) device (13) comprises a TAS nozzle (1) which rotates in angular steps and separates heat exchanger tubes (20) of the sea chest cooler (16) from the cooling process. The invention has the advantage that the cooler design is adapted to the simultaneous cooling and antifouling function and that the sea chest cooler comprising the integrated TAS device can be protected against fouling by using the waste heat from the cooling water without interrupting the cooling process.

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