

Title (en)

A RETRACTABLE THRUSTER, A SWIMMING VESSEL AND A METHOD FOR RETRACTING AND EJECTING A PROPELLER OF THE RETRACTABLE THRUSTER

Title (de)

EINZIEHBARES STRAHLRUDER, SCHIFF UND VERFAHREN ZUM EINZIEHEN UND AUSFAHREN EINES PROPELLERS DES EINZIEHBAREN STRAHLRUDERS

Title (fr)

PROPULSEUR RÉTRACTABLE, CAISSON FLOTTANT ET PROCÉDÉ DESTINÉ À RÉTRACTER ET ÉJECTER UNE HÉLICE DU PROPULSEUR RÉTRACTABLE

Publication

EP 3170736 A1 20170524 (EN)

Application

EP 16199089 A 20161116

Priority

FI 2015050808 W 20151120

Abstract (en)

A retractable thruster for a swimming vessel, wherein the retractable thruster comprises a propeller (3) and a lifting and lowering arrangement (4). The lifting and lowering arrangement (4) is configured to vertically move the propeller between a retracted position and an ejected position. In the retracted position the propeller is substantially inside a bottom well (5) of the swimming vessel and in the ejected position the propeller is substantially outside the bottom well. The retractable thruster comprises a water-permeable protective element (7) configured to be located inside the bottom well above the propeller and configured to vertically move with the propeller. In the ejected position the water-permeable protective element is configured to substantially prevent loose ice from drifting inside the bottom well through the water-permeable protective element and when the propeller is moved from the retracted position to the ejected position, the water-permeable protective element is configured to push ice out of the bottom well.

IPC 8 full level

B63H 25/42 (2006.01)

CPC (source: CN EP KR US)

B63B 3/14 (2013.01 - KR); **B63H 1/14** (2013.01 - US); **B63H 5/125** (2013.01 - CN KR US); **B63H 5/1252** (2013.01 - CN); **B63H 5/15** (2013.01 - US); **B63H 25/42** (2013.01 - EP KR US); **F15B 15/14** (2013.01 - KR); **B63B 2211/06** (2013.01 - EP US); **B63H 2005/1254** (2013.01 - US); **B63H 2025/425** (2013.01 - EP US); **F15B 2211/7053** (2013.01 - KR)

Citation (search report)

- [X] JP 2000272590 A 20001003 - HITACHI SHIPBUILDING ENG CO
- [I] US 3483843 A 19691216 - HAWTHORNE JAMES M
- [X] KR 20140133701 A 20141120 - SAMSUNG HEAVY IND [KR]
- [A] JP S5241389 A 19770330 - KAWASAKI HEAVY IND LTD

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3170736 A1 20170524; CA 2949013 A1 20170520; CN 107054598 A 20170818; KR 20170059404 A 20170530; RU 2016145257 A 20180518; US 2017144739 A1 20170525; WO 2017085356 A1 20170526

DOCDB simple family (application)

EP 16199089 A 20161116; CA 2949013 A 20161118; CN 201611028593 A 20161118; FI 2015050808 W 20151120; KR 20160152828 A 20161116; RU 2016145257 A 20161118; US 201615354089 A 20161117