

Title (en)  
PROPELLER WITH SMALL DUCT, AND SHIP

Title (de)  
PROPELLER MIT KLEINEM KANAL UND SCHIFF

Title (fr)  
HÉLICE ÉQUIPÉE D'UN PETIT CARÉNAGE ET NAVIRE

Publication  
**EP 2738084 A1 20140604 (EN)**

Application  
**EP 12817040 A 20120726**

Priority  
• JP 2011163203 A 20110726  
• JP 2012004777 W 20120726

Abstract (en)  
A propeller 10 setting a small duct 20 of the present invention includes a propeller 10 and a duct 20. A diameter D<sub>din</sub> of the duct is set to 20% or more and 50% or less of a diameter D<sub>p</sub> of the propeller 10, and a pitch H of the propeller 10 is a decreasing pitch which reduces in a radial direction of the propeller 10, and which becomes a maximum value at a blade root of the propeller 10 and becomes a minimum value at a blade tip of the propeller 10. The small duct 20 is placed in front of and close to the propeller 10. According to this, in an actual sea, cavitation is suppressed, and a load distribution of the propeller 10 in its radial direction which governs efficiency is optimized by utilizing interference with respect to the small duct 20.

IPC 8 full level  
**B63H 5/16** (2006.01); **B63H 1/26** (2006.01)

CPC (source: CN EP KR)  
**B63H 1/26** (2013.01 - CN EP); **B63H 5/16** (2013.01 - CN EP KR)

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

DOCDB simple family (publication)  
**EP 2738084 A1 20140604; EP 2738084 A4 20150408; EP 2738084 B1 20190102**; CN 103717488 A 20140409; CN 103717488 B 20161026; CN 107089313 A 20170825; CN 107089313 B 20190517; EP 3495257 A1 20190612; EP 3495257 B1 20200415; JP 5230852 B1 20130710; JP WO2013014938 A1 20150223; KR 101917408 B1 20181109; KR 102037018 B1 20191126; KR 102144840 B1 20200814; KR 20140068034 A 20140605; KR 20180089554 A 20180808; KR 20190121878 A 20191028; WO 2013014938 A1 20130131

DOCDB simple family (application)  
**EP 12817040 A 20120726**; CN 201280037120 A 20120726; CN 201610857291 A 20120726; EP 18215036 A 20120726; JP 2012004777 W 20120726; JP 2012554146 A 20120726; KR 20147004953 A 20120726; KR 20187022009 A 20120726; KR 20197030835 A 20120726