

Title (en)  
SHIP PROPULSION DEVICE

Title (de)  
SCHIFFSANTRIEBSVORRICHTUNG

Title (fr)  
DISPOSITIF DE PROPULSION DE NAVIRE

Publication  
**EP 3446960 A4 20191106 (EN)**

Application  
**EP 16899422 A 20160421**

Priority  
JP 2016062615 W 20160421

Abstract (en)  
[origin: EP3446960A1] An appendage 4 for reducing a hub vortex due to rotation of a propeller 2 is arranged on a front edge of a rudder 3 behind the propeller 2 at a height position of the propeller 2. A distance L1 between the front edge of the rudder 3 and a blade center of the propeller 2 is 30-60% inclusive of a diameter D of the propeller 2. A distance L2 between a front edge of the appendage 4 and a rear end of the propeller 2 is within a range of 50-300 mm.

IPC 8 full level  
**B63H 25/38** (2006.01); **B63H 1/28** (2006.01)

CPC (source: EP KR)  
**B63H 1/28** (2013.01 - EP); **B63H 25/38** (2013.01 - EP KR)

Citation (search report)  
• [X] EP 2163472 A1 20100317 - WAERTSILAE NETHERLANDS B V [NL], et al  
• [X] WO 2006112787 A1 20061026 - ROLLS ROYCE AB [SE], et al  
• [X] WO 9711878 A1 19970403 - WAERTSILAE PROPULSION A S [NO], et al  
• [I] KR 20120131626 A 20121205  
• See references of WO 2017183150A1

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 3446960 A1 20190227; EP 3446960 A4 20191106; CN 109070985 A 20181221; CN 109070985 B 20210119; JP 6793186 B2 20201202; JP WO2017183150 A1 20190328; KR 102229272 B1 20210319; KR 20180135469 A 20181220; WO 2017183150 A1 20171026**

DOCDB simple family (application)  
**EP 16899422 A 20160421; CN 201680084793 A 20160421; JP 2016062615 W 20160421; JP 2018512716 A 20160421; KR 20187033113 A 20160421**