

Title (en)

PROPULSION DEVICE FOR MULTI-SHAFT SHIP

Title (de)

ANTRIEBSVORRICHTUNG FÜR MEHRWELLENSCHIFF

Title (fr)

DISPOSITIF DE PROPULSION DE NAVIRE À ARBRES MULTIPLES

Publication

**EP 3450299 A4 20191106 (EN)**

Application

**EP 16900467 A 20160428**

Priority

JP 2016063353 W 20160428

Abstract (en)

[origin: EP3450299A1] An appendage 8 for reducing a hub vortex is arranged, through a support 7 extending from a hull 2, behind a propeller (wing propeller) 4 having no rudder behind the propeller. The appendage 8 is in the form of a spindle having a circular cross-section in a direction perpendicular to a central axis of the spindle along a hull and having a rear portion with gradually reduced diameters toward a rear end. The appendage 8 has a maximum diameter and a length along a hull which are 10-40% inclusive and 40-70% inclusive of the diameter of the propeller (wing propeller) 4, respectively.

IPC 8 full level

**B63H 5/07** (2006.01); **B63H 1/28** (2006.01); **B63H 5/08** (2006.01)

CPC (source: EP KR)

**B63H 1/28** (2013.01 - EP KR); **B63H 5/08** (2013.01 - EP KR)

Citation (search report)

- [X] WO 2011144239 A1 20111124 - WAERTSILAE FINLAND OY [FI], et al
- [X] FR 1020502 A 19530206 - FORGES CHANTIERS MEDITERRANEE
- [X] US 1549564 A 19250811 - SLOCUM STEPHEN E
- See references of WO 2017187597A1

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 3450299 A1 20190306; EP 3450299 A4 20191106; EP 3450299 B1 20210818**; CN 109070981 A 20181221; CN 109070981 B 20210713; JP 6770064 B2 20201014; JP WO2017187597 A1 20190307; KR 102199864 B1 20210111; KR 20190003586 A 20190109; WO 2017187597 A1 20171102

DOCDB simple family (application)

**EP 16900467 A 20160428**; CN 201680085000 A 20160428; JP 2016063353 W 20160428; JP 2018514051 A 20160428; KR 20187033553 A 20160428