

Title (en)
A propulsion unit

Title (de)
Antriebseinheit

Title (fr)
Unité de propulsion

Publication
EP 2995550 A1 20160316 (EN)

Application
EP 14184386 A 20140911

Priority
EP 14184386 A 20140911

Abstract (en)
The propulsion unit comprises a first housing (21) extending downwards from a hull (10) of a vessel and a second housing (22) attached to a lower end (21A) of the first housing (21). A first shaft (31) extends in a first direction within the first housing (21) and a second shaft (41) extends in a second direction within the second housing (22). The second shaft (41) protrudes from the second housing (22). A transmission (34, 44) connects the first shaft (31) to the second shaft (41). A propeller (50, 51) is attached to the second shaft (41) outside the second housing (21). A first electric motor (60) is positioned within the first housing (21). The first electric motor (60) comprises a rotor (61) and a stator (62) surrounding the rotor (61). The rotor (61) extends along an axial direction of the first shaft (31) and is attached to the first shaft (31). The first electric motor (60) drives the propeller (50, 51) via the first shaft (31), the transmission (34, 44) and the second shaft (41). The first electric motor (60) is directly cooled to sea water surrounding the first housing (21).

IPC 8 full level
B63H 5/125 (2006.01); **B63H 21/17** (2006.01); **B63H 21/38** (2006.01); **B63H 25/42** (2006.01)

CPC (source: EP)
B63H 5/125 (2013.01); **B63H 21/17** (2013.01); **B63H 21/383** (2013.01); **B63H 25/42** (2013.01); **B63H 2005/1258** (2013.01)

Citation (applicant)
• JP 2000142576 A 20000523 - NIIGATA ENGINEERING CO LTD
• WO 2009141254 A2 20091126 - SIEMENS AG [DE], et al
• US 7641526 B1 20100105 - BEKKER JOANNES RAYMOND MARI [US]

Citation (search report)
• [Y] US 2011318978 A1 20111229 - KRACKHARDT ERNST-CHRISTOPH [DE], et al
• [Y] US 2003166362 A1 20030904 - VARIS JUKKA [FI]
• [A] DE 102010044436 A1 20120308 - LAIS GMBH [DE]
• [A] EP 1426287 A1 20040609 - YANMAR CO LTD [JP]

Cited by
CN110697013A; WO2016177865A1; US10767688B2

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 2995550 A1 20160316

DOCDB simple family (application)
EP 14184386 A 20140911