

Title (en)
Rudder for ship

Title (de)
Schiffsruder

Title (fr)
Gouvernail pour bateau

Publication
EP 2263936 A1 20101222 (EN)

Application
EP 09008089 A 20090619

Priority
KR 20090053998 A 20090617

Abstract (en)

A ship rudder is disposed behind a propeller at a stern of a ship to control a movement direction of the ship. The ship rudder is divided into an upper blade and a lower blade on an axis of the propeller. Leading edge parts and trailing edge parts of the upper and lower blades are twisted at a predetermined twist angle on the axis of the propeller to be biased towards a rotational incoming flow induced from the propeller and to form an asymmetrically dislocated part. The leading edge parts of the upper and lower blades include a rudder bulb formed around the axis of the propeller to surround the asymmetrically dislocated part and including a thrust fin formed at either side of the rudder bulb. In the trailing edge parts of the upper and lower blades, portions of the asymmetrically dislocated part adjacent to the axis of the propeller in a vertical direction are cut at a constant tilt angle. The cut portions of the upper and lower blades are connected to each other via a tilt scissors plate mounted on surfaces of the cut portions to secure structural rigidity of the rudder.

IPC 8 full level
B63H 25/38 (2006.01)

CPC (source: EP)
B63H 25/383 (2013.01)

Citation (applicant)

- KR 2005103137 A 20051027 - BECKER MARINE SYS GMBH & CO KG [DE]
- JP S6231000 U 19870224
- DE 202007017448 U1 20080228 - BECKER MARINE SYS GMBH & CO KG [DE]
- JP S5663598 A 19810530 - YAMAHA MOTOR CO LTD
- DE 202007015941 U1 20080117 - BECKER MARINE SYS GMBH & CO KG [DE]

Citation (search report)

- [A] DE 202007015941 U1 20080117 - BECKER MARINE SYS GMBH & CO KG [DE]
- [A] US 2009126614 A1 20090521 - KLUGE MATHIAS [DE], et al
- [A] DE 202007017450 U1 20080327 - BECKER MARINE SYS GMBH & CO KG [DE]
- [A] GB 2111007 A 19830629 - KAWASAKI HEAVY IND LTD
- [A] DE 583091 C 19330828 - RUDOLF WAGNER DR

Cited by
CN103129728A; JP2020185810A; JP2015131632A; JP2019177813A; JP2016120836A; JP2013256215A

Designated contracting state (EPC)
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 SE SI SK TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2263936 A1 20101222; EP 2263936 B1 20120502; AT E555981 T1 20120515

DOCDB simple family (application)
EP 09008089 A 20090619; AT 09008089 T 20090619