

Title (en)  
Submarine

Title (de)  
Unterseeboot

Title (fr)  
Submersible

Publication  
**EP 2676876 A3 20161221 (DE)**

Application  
**EP 13172027 A 20130614**

Priority  
DE 102012210499 A 20120621

Abstract (en)  
[origin: EP2676876A2] The submarine has a hull in which rudder blades (8) are arranged. The rudder blades are arranged outside of the hull and on the facing side of ship (2) and are configured such that the rudder blades are connected to each other in the rudder blade swivel range free space that is provided in a neutral position on the outside of the hull. A triangular cross-section contour is provided in the region of the rudder blades. The rudder blades are arranged to form an X-rudder.

IPC 8 full level  
**B63G 8/18** (2006.01); **B63G 8/20** (2006.01); **F42B 19/01** (2006.01)

CPC (source: EP)  
**B63G 8/18** (2013.01); **B63G 8/20** (2013.01)

Citation (search report)

- [X] US 4919066 A 19900424 - GONGWER CALVIN A [US]
- [X] US 6223676 B1 20010501 - LAFOUNTAIN KEVIN LOUIS [US]
- [X] GB 2164612 A 19860326 - BRITISH AEROSPACE
- [Y] GB 2130540 A 19840606 - HOWALDTSWERKE DEUTSCHE WERFT
- [Y] EP 2327624 A2 20110601 - AIRBUS OPERATIONS SL [ES]

Cited by  
CN113734392A; CN109533259A; WO2023117617A1; WO2021194565A3; WO2023039876A1

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 2676876 A2 20131225; EP 2676876 A3 20161221; EP 2676876 B1 20190320**; DE 102012210499 A1 20131224;  
KR 101614894 B1 20160422; KR 20130143497 A 20131231

DOCDB simple family (application)  
**EP 13172027 A 20130614**; DE 102012210499 A 20120621; KR 20130069526 A 20130618