

Title (en)  
Submarine with a tow-line

Title (de)  
Unterseeboot mit einer Schleppleine

Title (fr)  
Sous-marin avec une ligne de remorquage

Publication  
**EP 1783047 A3 20090603 (DE)**

Application  
**EP 06019619 A 20060920**

Priority  
DE 102005052109 A 20051102

Abstract (en)  
[origin: EP1783047A2] The submarine (4) has a towing line retained in a bow area (7) of a hull, where the towing line is connected with an auxiliary rope (1). The auxiliary rope is guided from the bow area up to a sail (3) in or at an exterior shell (6), where the auxiliary rope is designed as a rope such as cable rope that is thinner than the towing line. The auxiliary rope is arranged in a groove (5) in the shell, where the groove is closed by a sealant.

IPC 8 full level  
**B63G 8/40** (2006.01); **B63G 8/00** (2006.01); **B63G 8/42** (2006.01)

CPC (source: EP KR)  
**B63B 21/04** (2013.01 - KR); **B63B 21/66** (2013.01 - EP); **B63G 8/00** (2013.01 - KR); **B63G 8/42** (2013.01 - EP)

Citation (search report)

- [AD] DE 9313337 U1 19931118 - HOWALDTSWERKE DEUTSCHE WERFT [DE]
- [A] US 3897746 A 19750805 - JAMIESON ROBERT D

Cited by  
WO2014086657A1; FR3030437A1; FR2998863A1; FR2998864A1; WO2014086820A3

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK RS

DOCDB simple family (publication)  
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