

Title (en)  
COVER DEVICE AND THRUSTER

Title (de)  
ABDECKVORRICHTUNG SOWIE STRAHLRUDER

Title (fr)  
DISPOSITIF DE RECOUVREMENT ET GOUVERNAIL À JET

Publication  
**EP 3619102 A1 20200311 (DE)**

Application  
**EP 18723752 A 20180427**

Priority  
• DE 102017207344 A 20170502  
• EP 2018060919 W 20180427

Abstract (en)  
[origin: WO2018202583A1] The invention relates to a cover device for closing an underwater opening in the hull of a watercraft at least in some regions, in particular an opening of a transverse channel of a thruster. According to the invention, the cover device has at least one volume-modifiable hollow lip assembly with at least two hollow lips which can be converted into an expanded state or a shrunk state by supplying or discharging a fluid, in particular air. By virtue of the volume-modifiable or inflatable cover device, the cover device can be operated in a reliable manner while requiring little maintenance at the same time. The invention additionally relates to a thruster, in particular a bow or stern thruster.

IPC 8 full level  
**B63B 1/36** (2006.01); **B63B 13/02** (2006.01); **B63H 25/46** (2006.01)

CPC (source: EP KR US)  
**B63B 1/36** (2013.01 - EP KR); **B63B 13/02** (2013.01 - EP KR); **B63B 19/00** (2013.01 - KR); **B63H 5/16** (2013.01 - EP KR US); **B63H 25/46** (2013.01 - EP KR); **B63H 2025/465** (2013.01 - EP); **Y02T 70/10** (2013.01 - EP KR)

Citation (search report)  
See references of WO 2018202583A1

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)  
**WO 2018202583 A1 20181108**; AU 2018263750 A1 20191031; CN 110603190 A 20191220; DE 102017207344 A1 20181108; EP 3619102 A1 20200311; JP 2020518508 A 20200625; KR 20200002921 A 20200108; US 10988220 B2 20210427; US 2020130796 A1 20200430

DOCDB simple family (application)  
**EP 2018060919 W 20180427**; AU 2018263750 A 20180427; CN 201880028848 A 20180427; DE 102017207344 A 20170502; EP 18723752 A 20180427; JP 2019560269 A 20180427; KR 20197033802 A 20180427; US 201816605615 A 20180427