

Title (en)  
LIFTING FORCE REGULATED HYDROFOIL

Title (de)  
HYDROFOIL MIT GEREGLTER HUBKRAFT

Title (fr)  
AILE PORTANTE RÉGULÉ PAR FORCE DE PORTANCE

Publication  
**EP 3793892 A1 20210324 (EN)**

Application  
**EP 19803799 A 20190513**

Priority  
• US 201862671368 P 20180514  
• US 2019032063 W 20190513

Abstract (en)  
[origin: US2021114692A1] The vessels weight is wholly or partially supported by one or more fully or partially submerged hydrofoil(s). The amount of lift provided by said hydrofoil(s) is regulated as a function of that lift itself. External variables such as trim angle and vessel velocity affect total lift, and this system compensates for those variables to provide a regulated lift without the need to directly sense any of the external variables. A typical control system comprises one or more sensory inputs, a method to translate the input into a control output, and an actuator that turns the outputs into actual movements. The only sensory input for this system is the same lifting force that is being regulated. The mechanical arrangement translates that lifting force into movements that produce negative feedback by varying the angle of attack of the hydrofoil, which in turn regulates the lift produced.

IPC 8 full level  
**B63B 1/28** (2006.01); **B63B 1/00** (2006.01); **B63B 1/16** (2006.01); **B63B 1/24** (2020.01)

CPC (source: EP US)  
**B63B 1/18** (2013.01 - EP); **B63B 1/248** (2013.01 - US); **B63B 1/28** (2013.01 - EP US); **B63B 1/285** (2013.01 - EP US);  
**B63B 39/06** (2013.01 - EP); **B63B 79/10** (2020.01 - US)

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)  
**US 2021114692 A1 20210422**; EP 3793892 A1 20210324; EP 3793892 A4 20220309; WO 2019222119 A1 20191121

DOCDB simple family (application)  
**US 201917050519 A 20190513**; EP 19803799 A 20190513; US 2019032063 W 20190513