

Title (en)

Method and system for steering a body moving within a fluid

Title (de)

Verfahren und System zur Steuerung eines sich in einer Flüssigkeit bewegendes Körpers

Title (fr)

Procédé et système pour diriger un corps se déplaçant dans un fluide

Publication

EP 2107333 A1 20091007 (EN)

Application

EP 08425219 A 20080403

Priority

EP 08425219 A 20080403

Abstract (en)

Described herein is a method for steering a body (10) moving underwater provided with movement control elements (13) independently actuatable for generating rotations of the body (10) about one or more of its axes, the longitudinal axis (x), the transverse axis (y), and the vertical axis (z); the method envisages the step of generating deflections ($\dot{\varphi}$ UR, $\dot{\varphi}$ LR, $\dot{\varphi}$ LL and $\dot{\varphi}$ UL) of the four movement control elements (13) according to steering commands (\dot{p} , \dot{q} , \dot{r}) indicating desired rotations about the longitudinal axis (x), transverse axis (y), and vertical axis (z). The method also envisages, prior to the step of generating, the steps of: verifying that the steering commands (\dot{p} , \dot{q} , \dot{r}) are compatible with structural limitations of the movement control elements (13); and, according to the result of said verification, modifying the steering commands (\dot{p} , \dot{q} , \dot{r}) on the basis of said structural limitations. Also described is a system (11) for steering the body (10) moving underwater, provided with a control unit (15) configured so as to implement the aforesaid steering method.

IPC 8 full level

F42B 19/01 (2006.01); **B63G 8/20** (2006.01); **B63H 25/04** (2006.01)

CPC (source: EP US)

B63G 8/20 (2013.01 - EP); **B63H 25/04** (2013.01 - EP); **F42B 19/01** (2013.01 - EP US)

Citation (search report)

- [XY] US 3818853 A 19740625 - TABOULTIER P, et al
- [Y] GB 2405125 A 20050223 - HOLMES IAN CHARLES [GB]
- [A] JP H06341852 A 19941213 - ISHIKAWAJIMA HARIMA HEAVY IND

Cited by

CN112591059A; JP2016088348A; DE102016006933B3; JP2013173436A

Designated contracting state (EPC)

DE FR GB IT

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

EP 2107333 A1 20091007; **EP 2107333 B1 20110126**; DE 602008004737 D1 20110310

DOCDB simple family (application)

EP 08425219 A 20080403; DE 602008004737 T 20080403