Title (en)

Fin stabilizer for vessel and control method and control program therefor

Title (de)

Flügelstabilisator für Schiffe und Steuerungsverfahren sowie Steuerungsprogramm hierfür

Title (fr)

Ailette stabilisatrice pour bateau et méthode et programme de contrôle pour la même

Publication

EP 1886916 A1 20080213 (EN)

Application

EP 06118547 A 20060807

Priority

EP 06118547 A 20060807

Abstract (en)

An object is to suppress the rocking motion of a vessel body with a high level of accuracy by obtaining a required lifting force. A torque calculation section 27 calculates a torque of a fin 11 based on the pressure of a hydraulic cylinder 12. This torque is inputted to an angle of attack computing unit 24 via a torque adjusting unit 28, and based on this torque, a fin angle with respect to a flow of sea water, that is, an angle of attack of the fin is estimated. Then a command generation section 23 generates a fin angle command value $¸3$ for matching the estimated angle of attack $¸2'$ with a target fin angle $¸1$. Based on this fin angle command value $¸3$, a flow rate adjusting mechanism 14 controls a flow rate Q of hydraulic fluid applied to the hydraulic cylinder 12, to thereby adjust the angle of the fin 11. Thus, the fin angle is controlled based on the angle of attack, which directly relates to lifting force.

IPC 8 full level

B63B 39/06 (2006.01)

CPC (source: EP)

B63B 39/06 (2013.01)

Citation (applicant)

- JP 2005118421 A 20050512 - OLYMPUS CORP
- JP H08324485 A 19961210 - HITACHI SHIPBUILDING ENG CO

Citation (search report)

- [A] JP S61160389 A 19860721 - MITSUBISHI HEAVY IND LTD
- [A] US 5511504 A 19960430 - MARTIN JOHN R [US]

Cited by

CN104192279A; CN106842910A; CN114815626A; CN106428452A; CN107719595A

Designated contracting state (EPC)

DE FR GB IT

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

EP 1886916 A1 20080213; **EP 1886916 B1 20090715**; DE 602006007843 D1 20090827

DOCDB simple family (application)

EP 06118547 A 20060807; DE 602006007843 T 20060807