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(54) Electromechanical control device particularly for boats

(57) Control device particularly for boats, at least a control mechanism (1) for setting the operation conditions of at least an engine and/or of other operating units, which control mechanism is movable along a predetermined path and for a predetermined travel between two end limit stop positions (201, 301); means (6) for setting the engine supply and/or the operation parameters of said other operating units which setting means have at least a mobile setting mechanism, such as for example a throttle of a carburator, and which setting mechanism is connected to said at least single control mechanism (1) by means of a mechanical transmission (2, 4, 6), such as a cable, lever or tie rod system or the like. A movement thereof causes a movement of the setting mechanism. According to the invention the system further provides a movement and/or position sensor (3) of the at least one control mechanism, which sensor produces electrical signals univocally correlated to the position and/or movement of said control mechanism; at least a motor actuator (5) for operating the setting mechanism, which motor actuator (5) is connected to a control gearcase and which gearcase produces control signals of the motor actuator univocally correlated and corresponding to signals transmitted by the position and/or movement sensor (401, 203); the motor actuator (5) and the mechanical transmission (4) being contemporaneously connected to the setting mechanism (6).

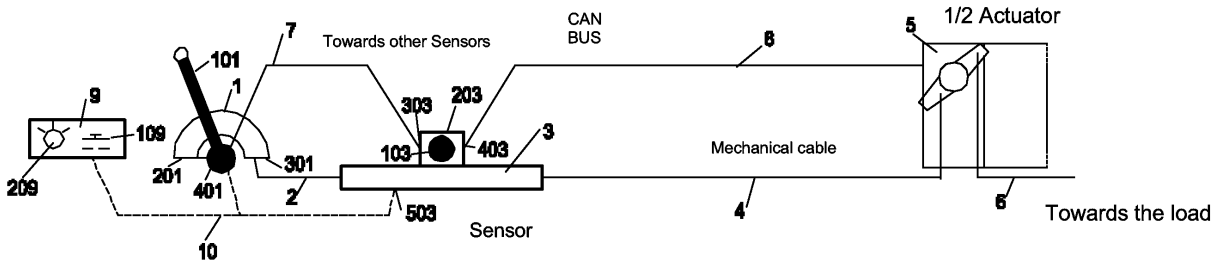


FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 04 10 4917

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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Y	* the whole document *	6,14-26, 31,32, 41,42, 44,46	

Y	US 5 782 659 A (MOTOSE ET AL) 21 July 1998 (1998-07-21) * column 2, line 30 - column 5, line 5; figures *	6,14-18, 21-26, 31,32, 44,46	

Y	US 5 280 282 A (NAGAFUSA ET AL) 18 January 1994 (1994-01-18) * abstract; figures *	6	
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Y	US 6 273 771 B1 (BUCKLEY GEORGE W ET AL) 14 August 2001 (2001-08-14) * abstract; figures 1,4 *	19,20	B63H G05G

Y	US 3 640 155 A (DONALD W. WANER ET AL) 8 February 1972 (1972-02-08) * abstract; figures *	41,42	

A	US 6 238 255 B1 (TAKASE HIROAKI) 29 May 2001 (2001-05-29) * abstract; figures *	1-48	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	7 November 2005	Moya, E

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☒ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

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LACK OF UNITY OF INVENTION
SHEET B

Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-39, 48

A control device (claims 1-39) and a method for making an electromechanical control system (claim 48) comprising a control mechanism, means for setting an engine supply connected mechanically with the control mechanism, a movement or position sensor producing an electrical signal, a motor actuator connected to a control gearcase that produces a control signal, the motor actuator and the mechanical means being contemporaneously connected to the setting means.

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2. claims: 40-47

An interposing unit between two portions of a mechanical transmission having a mobile connecting member and a movement or position sensor of said mobile connecting member.

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 04 10 4917

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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07-11-2005

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82