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Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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26 February 2009

(54) Title: STEERING DEVICE

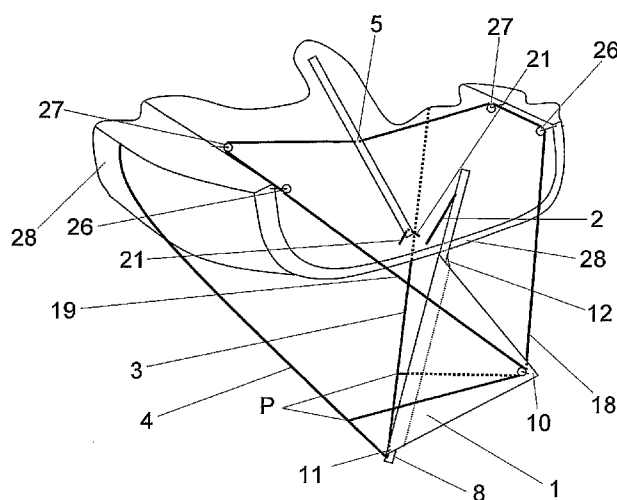


Figure 3

(57) Abstract: A steering device consists of a towed steering surface (blade (1)) attached to a marine vessel (28) by means of lines. It provides a method of steering the vessel in fluid. Blade (1) is either rigid or non-rigid and may be supported by a framework. Control of the blade is by an attached lever/quadrant (5) or by lines (18 and 19). Attachment lines (2, 3 and 4) and/or control lines (18 and 19) can be configured according to the current invention so as to permit a lightweight construction of blade (1) and/or light loads on the helm. The device can be designed as primary steering or as a form of emergency or reserve steering which can be deployed either with or without prior preparation of the vessel.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2008/002243

A. CLASSIFICATION OF SUBJECT MATTER

INV. B63H25/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B63H B63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 2008/016681 A (HOBIE CAT COMPANY A MISSOURI C [US]) 7 February 2008 (2008-02-07) the whole document	1,3-5, 11-13, 18-21, 24,25
P, X	US 2008/105183 A1 (SANTARONE JOEL F [US]) 8 May 2008 (2008-05-08) the whole document	1,3,4, 11-13, 18-21, 24,25
Y	EP 0 562 780 A (GECO AS [NO]) 29 September 1993 (1993-09-29) column 5, line 19 - column 6, line 21; figures 5,6	1,3,4,9, 11-13, 16,23, 26,27
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☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

9 September 2008

Date of mailing of the international search report

22/12/2008

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2008/002243

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 3 838 660 A (FRISBEE L) 1 October 1974 (1974-10-01) column 3, lines 19-31; figure 1 -----	1,3,4,9, 11-13, 16,23, 26,27
A	GB 2 414 804 A (WESTERNGECO SEISMIC HOLDINGS [VG]) 7 December 2005 (2005-12-07) paragraphs [0053], [0054]; figure 8 -----	1,3,4, 11-13, 16,23, 26,27

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2008/002243

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 30
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-21, 23-29

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/GB2008 /002243

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 30

Claim 30 is an attempt to describe the invention by way of the description and drawings and does not comprise any features allowing to delimit the scope of the protection sought.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.2), should the problems which led to the Article 17(2)PCT declaration be overcome.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/GB2008 /002243

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-21,23-29

Device for steering for a marine vessel and attachment of such device to a marine vessel

2. claim: 22

Construction of a blade

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/GB2008/002243

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 2008016681	A	07-02-2008	US 2008029010 A1	07-02-2008
US 2008105183	A1	08-05-2008	NONE	
EP 0562780	A	29-09-1993	DE 69302513 D1	13-06-1996
			DE 69302513 T2	19-09-1996
			US 5357892 A	25-10-1994
US 3838660	A	01-10-1974	NONE	
GB 2414804	A	07-12-2005	BR PI0502241 A	24-01-2006
			US 2008279042 A1	13-11-2008
			US 2008175097 A1	24-07-2008