

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To: <p style="text-align: center;">Kanji NAGATO</p> <p style="text-align: center;">5F, Hyakuraku Bldg. 8-1, Shinbashi 5-chome Minato-ku, Tokyo 105-0004 Japan</p>		Date of mailing (day/month/year) 1 2 . 0 6 . 2 0 1 2
Applicant's or agent's file reference FPHH1622PC		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/J P 2 0 1 2 / 0 5 5 6 7 6	International filing date (day/month/year) 0 6 . 0 3 . 2 0 1 2	Priority date (day/month/year) 0 7 . 0 3 . 2 0 1 1
International Patent Classification (IPC) or both national classification and IPC Int.Cl. B63B35/44(2006.01) i, B63B21/10(2006.01) i, B63B35/00(2006.01) i, B63B39/06(2006.01) i, B63B43/04(2006.01) i		
Applicant <p style="text-align: center;">IHI MARINE UNITED INC.</p>		

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ JAPAN PATENT OFFICE (ISA/JP) 4-3, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo 100-8915 Facsimile No.	Date of completion of this opinion <p style="text-align: center;">0 4 . 0 6 . 2 0 1 2</p>	Authorized officer <p style="text-align: center;">Hiroshi SHIMIZU</p> Telephone No 0 3 - 3 5 8 1 - 1 1 0 1
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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2012/055676

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - the international application in the language in which it was filed.
 - a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:
 - a. (means)
 - on paper
 - in electronic form
 - b. (time)
 - in the international application as filed
 - together with the international application in electronic form
 - subsequently to this Authority for the purposes of search
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2012/055676

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1 - 10	YES
	Claims		NO
Inventive step (IS)	Claims	3, 6 - 7, 9 - 10	YES
	Claims	1 - 2, 4 - 5, 8	NO
Industrial applicability (IA)	Claims	1 - 10	YES
	Claims		NO

2. Citations and explanations:

Document 1: JP2002-188557A (Mitsui Engineering & Shipbuilding Co., Ltd.)
05.07.2002, pars. [0013] to [0019], [0021]; figs. 1 to 3 (Family: none)

Document 2: JP2005-180351A (Yoshiro NOBUTA) 07.07.2005, pars. [0003] to [0004],
[0023] to [0029]; figs. 1 to 3, 5 to 6 (Family: none)

The inventions recited in claims 1 to 2, 4 to 5 and 8 do not involve an inventive step in view of documents 1 and 2 cited in the International Search Report.

Document 1 discloses that to ensure stability of a spar-type floating structure (floating wind power generation system 1) comprising a tall, thin floatingbody (floatingbody 3) and a ballast portion (ballast weight 32) provided to the floating body so that the weight of the ballast portion allows the floating body to float in upright position, the floating body includes a horizontally-extending extended portion (buoyancy body 35) arranged in the middle to constitute a buoyancy portion giving buoyancy to the floating body, and a column portion (floating main body 31) connecting the ballast portion and the extended portion and extending up to the waterline.

Document 2 discloses that to ensure stability of a floating structure (floating wind power generation system), the floating structure comprises a horizontally-extending first extended portion (ballast weight 115) arranged at the bottom to form a ballast portion, a horizontally-extending second extended portion (primary float) arranged in the middle to constitute a buoyancy portion giving buoyancy to the floating structure, a column portion (columnar support 100) connecting the first and second extended portions and extending up to the waterline, a horizontally-extending third extended portion (secondary float 200) arranged at the top of the column portion, a columnar member (columnar support 100) with a reduced horizontal size joined to the top of the third extended portion, and mooring cables (cables 300) for mooring the floating structure connected to the third extended portion.

It would have been easy for the person skilled in the art to apply the features disclosed in document 2 to the invention disclosed in document 1. The inventions disclosed in documents 1 and 2 are both aimed at ensuring stability. Designing the floating structure to meet the requirement set forth in claim 8 is just a matter of design; the person skilled in the art would be able to do so when appropriate.

The inventions recited in claims 3, 6 to 7 and 9 to 10 are not disclosed in any of the documents cited in the International Search Report, and not obvious to the person skilled in the art. They have thus novelty and involve an inventive step.