

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

# PCT

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)**

To:

see form PCT/ISA/220

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/GB2018/052465

International filing date (day/month/year)  
31.08.2018

Priority date (day/month/year)  
01.09.2017

International Patent Classification (IPC) or both national classification and IPC  
INV. B63B39/06

Applicant  
SLLP 134 LIMITED

**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 usually 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.

Name and mailing address of the ISA:



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Date of completion of this opinion

see form  
PCT/ISA/210

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**Box No. I Basis of the opinion**

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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 43bis.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:
  - a.  forming part of the international application as filed:
    - in the form of an Annex C/ST.25 text file.
    - on paper or in the form of an image file.
  - b.  furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
  - c.  furnished subsequent to the international filing date for the purposes of international search only:
    - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
    - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
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 forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

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

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1. Statement

Novelty (N)	Yes: Claims	<u>25</u>
	No: Claims	<u>1-24, 26, 27</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-27</u>
Industrial applicability (IA)	Yes: Claims	<u>1-27</u>
	No: Claims	

2. Citations and explanations

see separate sheet

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1 Reference is made to the following documents:

- D1 CN 205 418 007 U (OCEAN UNIV CHINA) 3 August 2016 (2016-08-03)
- D2 JP 2012 091690 A (MITSUBISHI HEAVY IND LTD) 17 May 2012 (2012-05-17)
- D3 EP 2 708 742 A1 (ALSTOM WIND SLU [ES]) 19 March 2014 (2014-03-19)
- D4 CN 103 587 660 B (UNIV DALIAN TECH) 4 July 2017 (2017-07-04)
- D5 US 3 429 127 A (DONKERS JACOBUS M) 25 February 1969 (1969-02-25)

2 Notwithstanding the lack of clarity mentioned under section VIII, the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT, and the criteria of Article 33(1) PCT are therefore not met.

D1 discloses a system for improving the static and dynamic stability of an offshore floating structure (1) comprising:  
a plurality of outriggers (see e.g. the figures), each outrigger having a unit (2, 3), the unit having an inertial mass (implicit); and  
a support structure (6), the support structure locatable to the offshore floating structure and holding the units at a radial distance from a centre of rotation of the offshore floating structure (see e.g. fig. 1, 3);

wherein the plurality of units are entirely submerged in use (fig. 1).

The subject-matter of claim 1 is also disclosed in D2 (see fig. 4), D3 (para. [0030]), D4 (fig. 2) and D5 (fig. 1).

- 3 Dependent claims 2 - 27 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, the reasons being as follows:

Concerning claims 2, 3, 5, 8, 11 - 21, 23, 24, 26, 27: the additional features of these claims are disclosed in at least one of the cited documents, see e.g. D1 (fig. 1 - 3) for claims 2, 3, 12, 13, 15 - 17; D5 (fig. 1, 2, col. 3, l. 3 - 43) for claims 5, 8, 11, 16 - 21, 23; D3 (fig. 2, 3, 5 - 8) for claims 14, 24, 26, 27.

Concerning claims 4, 6, 7, 9, 10, 22, 25: the additional features of these claims are simple constructional details, which come within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can readily be foreseen.

It would be obvious to the skilled person to combine for the same purpose, in accordance with circumstances, the additional features of claims 2 - 27 with the known features of document D1, without the exercise of inventive skills, in order to solve the respective problems posed.

### **Re Item VIII**

#### **Certain observations on the international application**

As explained below, some of the features in the apparatus claim 1 relate to a method of using the apparatus rather than clearly defining the apparatus in terms of its technical features. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.

The wording "*wherein the plurality of units are entirely submerged in use*" refers to the operation of the offshore floating platform and the level of submergence - of the units - depends on many factors, such as sea state, mooring load, weight of the structure, shape and volume of the units...

However the claim does not mention any of these factors. Hence there is no technical feature associated to this expression.

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in at least D1 is not mentioned in the description, nor are these documents identified therein.