

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference OUTRIGGER	FOR FURTHER ACTION		See item 4 below
International application No. PCT/GB2018/052465	International filing date (<i>day/month/year</i>) 31 August 2018 (31.08.2018)	Priority date (<i>day/month/year</i>) 01 September 2017 (01.09.2017)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant SLLP 134 LIMITED			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
<p>3. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</p>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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	Date of issuance of this report 03 March 2020 (03.03.2020)
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Box No. I Basis of the 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 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:

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

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

Box No. VIII Certain observations on the international application

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.