

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year)	see form PCT/ISA/210
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Applicant's or agent's file reference WA 4225-04WO	FOR FURTHER ACTION See paragraph 2 below
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International application No. PCT/EP2014/064965	International filing date (day/month/year) 11.07.2014	Priority date (day/month/year) 17.07.2013
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International Patent Classification (IPC) or both national classification and IPC
INV. B28B23/00 E04G21/18 F16B37/08

Applicant
WOBBEN PROPERTIES GMBH

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 or 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/EP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

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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 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 - a sequence listing
 - table(s) related to the sequence listing
 - b. format of material
 - on paper
 - in electronic form
 - c. time of filing/furnishing
 - contained in the international application as filed
 - filed together with the international application in electronic form
 - furnished 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 and/or table(s) relating thereto 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:

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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

1. Statement			
Novelty (N)	Claims	<u>1-4, 6-8</u>	YES
	Claims	<u>5, 9</u>	NO
Inventive step (IS)	Claims	<u></u>	YES
	Claims	<u>1-9</u>	NO
Industrial applicability (IA)	Claims	<u>1-9</u>	YES
	Claims	<u></u>	NO

2. Citations and explanations:

1 **Documents introduced**

Reference is made to the following documents:

- D1 DE 16 84221 A1 (ERHART ANINA GRACE; ERHART ALLAN FRANCIS) 1 April 1971 (1971-04-01)
- D2 GB 1 250 008 A (RAWLPLUG CO LTD) 20 October 1971 (1971-10-20)
- D3 WO 95/16140 A1 (OIKE & CO [JP]; OIKE ETSUJI [JP]) 15 June 1995 (1995-06-15)
- D4 EP 0 050 798 A1 (DYCKERHOFF & WIDMANN AG [DE]) 5 May 1982 (1982-05-05)
- D5 US 2009/324364 A1 (SMITH RONALD A [US]) 31 December 2009 (2009-12-31)
- D6 US 5 081 811 A (SASAKI KENSUKE [JP]) 21 January 1992 (1992-01-21)
- D7 US 6 007 284 A (TANEICHI KAORU [JP]) 28 December 1999 (1999-12-28)
- D8 DE 10 2010 005991 A1 (WOBEN ALOYS [DE]) 28 July 2011 (2011-07-28)

2 **Independent claim 1**

2.1 D1 (figures 1-6; page 5, line 1 - page 6, line 8 ;

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page 9, lines 13-28) (the references between parentheses relate to said document) is considered to be the prior art closest to the subject matter of claim 1 and discloses

a method for producing a precast concrete part, comprising the following steps:
placing an inner formwork (10) with at least one bore (27) and at least one holding unit (18) on an inner side of the inner formwork (10) in the region of the bore (27),
introducing a first end (16) of a concrete anchor (14) from the outer side of the inner formwork (10) through the bore (27) into the holding unit (18) to hold the concrete anchor (14),
placing an outer formwork (implicitly disclosed),
pouring concrete between the inner and outer formwork,
removing the first end (16) of the concrete anchor (14), and
removing the inner and outer formwork.

2.2 Therefore, the subject matter of claim 1 differs from the known method of D1 in that the present method is used for producing a precast concrete tower segment of a wind turbine tower.

2.3 However, there are no features in claim 1 which are specific for the production of a tower segment. Moreover, the production of a tower segment in a formwork is already known (see for example D8: figure 1 ; paragraphs [0028] and

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[0029]). Therefore, a person skilled in the art would customarily also use the teaching of D1 with respect to the fastening of a concrete anchor for the production of a tower segment.

2.4 Therefore, the subject of claim 1 does not appear to be inventive (PCT Article 33(3)).

2.5 D2-D4 could also be used as closest prior art instead of D1 ; see the relevant passages of text indicated in the search report.

3 **Independent claim 5**

3.1 D8 (figures 1, 5 and 6 ; paragraphs [0028], [0029], [0051] and [0052]) discloses a wind turbine tower precast concrete segment *which can be produced or is produced by a method according to one of claims 1-4 (see §3.2).*

3.2 Since the method according to claim 1 does not further define the concrete anchor and has no specific influence on the end product, all tower segments having at least one concrete anchor (12) as in D8 are considered to be prejudicial to the novelty of claim 5.

3.3 The subject matter of claim 5 therefore does not appear to be novel (PCT Article 33(2)).

4 **Independent claim 6**

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4.1	<p>D1 (figures 1-6 ; page 5, line 1 - page 6, line 8 ; page 9, lines 13-28) (the references between parentheses relate to said document) is considered to be the prior art closest to the subject matter of claim 6 and discloses</p> <p>a formwork, comprising an inner formwork (10) with at least one bore (27), and at least one holding unit (18) on the inner formwork (10) in the region of the bore (27), wherein the holding unit (18) is designed to hold a concrete anchor (14) when a first end (16) of the concrete anchor (14) is introduced from an outer side of the inner formwork (10) through the bore (27) into the holding unit (18).</p>
4.2	<p>Therefore, the subject matter of claim 6 differs from the known formwork of D1 in that the shape of the formwork allows the production of a tower segment.</p>
4.3	<p>As already explained in §2.3 of this opinion, a formwork for the production of a tower segment for a wind turbine is already known from D8. Since the features of claim 6 are not specific for the production of a tower segment, a person skilled in the art would consider it to be routine to adapt the shape of the formwork of D1 in such a way that a tower segment can be produced from the formwork of D1.</p>
4.4	<p>The subject matter of claim 6 therefore does not</p>

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appear to be inventive (PCT Article 33(3)).

4.5 D2-D4 could also be used as closest prior art instead of D1; see the relevant passages of text indicated in the search report.

5 **Independent claim 9**

5.1 D1 (figures 1-6 ; page 5, line 1 - page 6, line 8 ; page 9, lines 13-28) (the references between parentheses relate to said document) discloses

a holding unit (18) for holding a concrete anchor (14) *during the production of a precast concrete tower segment of a wind turbine tower (which is suitable in the production of a precast concrete tower segment of a wind turbine tower, see Guidelines F-IV, 4.13)*, comprising at least one fastening portion (20, 23, 28) for fastening the holding unit (18) to an inner formwork (10), and at least one resilient holding element (26, 40) which allows a concrete anchor (14) to be introduced in a first direction and prevents the concrete anchor (14) from being removed in a second direction, wherein the second direction is opposed to the first direction.

5.2 The subject matter of claim 9 therefore does not appear to be novel (PCT Article 33(2)).

5.3 D5-D7 likewise disclose all the features of claim 9; see the relevant passages of text indicated in

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the search report.

6 **Dependent claims 2-4, 7 and 8**

6.1 Dependent claims 2-4, 7 and 8 do not appear to contain any additional features which, in combination with the features of any claim to which they refer back, meet the requirements of the PCT in respect of inventive step.

6.2 D1 (figures 1-6; page 5, line 1 - page 6, line 8; page 9, lines 13-28) discloses all the features of claims 2, 3, 7 and 8. D5-D7 also disclose all the features of these claims; see the relevant passages of text indicated in the search report.

6.3 D2 (figures 1 and 2; page 2, lines 22-58) discloses the subject matter of claim 4.

7 **Industrial applicability**

7.1 Claims 1-9 relate to subject matter which, in the view of this Authority, falls under PCT Article 33(4).