

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 2017P00073WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/DK2018/050189	International filing date (<i>day/month/year</i>) 2 August 2018 (02-08-2018)	(Earliest) Priority Date (<i>day/month/year</i>) 3 August 2017 (03-08-2017)
Applicant VESTAS WIND SYSTEMS A/S		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out 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))

b. This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).

c. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. **Certain claims were found unsearchable** (See Box No. II)

3. **Unity of invention is lacking** (see Box No III)

4. With regard to the **title**,

- the text is approved as submitted by the applicant
 the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- the text is approved as submitted by the applicant
 the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 6
 as suggested by the applicant
 as selected by this Authority, because the applicant failed to suggest a figure
 as selected by this Authority, because this figure better characterizes the invention
- b. none of the figures is to be published with the abstract

INTERNATIONAL SEARCH REPORT

International application No
PCT/DK2018/050189

A. CLASSIFICATION OF SUBJECT MATTER
 INV. B23C5/04 B23C5/18
 ADD.
 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)
 B23C B24D B25C B23B

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 practicable, 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.
X	US 5 020 394 A (NAKAMURA TSUTOMU [JP] ET AL) 4 June 1991 (1991-06-04) figure 2; example 1	1,4,15
X	WO 2015/018842 A1 (ELEMENT SIX LTD [IE]) 12 February 2015 (2015-02-12) page 7, last paragraph - page 8, last paragraph; figure 1c	1-4,15
X	GB 2 481 295 A (ELEMENT SIX LTD [IE]; ELEMENT SIX PRODUCTION PTY LTD [ZA]) 21 December 2011 (2011-12-21) page 3, line 10 - line 21; figure 2	1,4,15
A	WO 02/49801 A1 (DE BEERS IND DIAMOND [ZA]; FRIES ROBERT [ZA]; SIGALAS IACOVOS [ZA]) 27 June 2002 (2002-06-27) page 5, paragraph 2; figure 2	1-15

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	"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
"E" earlier application or patent but published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 10 October 2018	Date of mailing of the international search report 26/10/2018
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Herbreteau, D
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/DK2018/050189

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
US 5020394	A	04-06-1991	CA 2000417 A1	14-04-1990
			DE 68911468 D1	27-01-1994
			DE 68911468 T2	14-04-1994
			EP 0365218 A1	25-04-1990
			ES 2048847 T3	01-04-1994
			JP H02106210 A	18-04-1990
			US 5020394 A	04-06-1991
			ZA 8907790 B	26-06-1991

WO 2015018842	A1	12-02-2015	GB 2518511 A	25-03-2015
			WO 2015018842 A1	12-02-2015

GB 2481295	A	21-12-2011	CN 103097064 A	08-05-2013
			EP 2582478 A1	24-04-2013
			GB 2481295 A	21-12-2011
			JP 5913300 B2	27-04-2016
			JP 2013528504 A	11-07-2013
			KR 20130038299 A	17-04-2013
			US 2013209184 A1	15-08-2013
			WO 2011157667 A1	22-12-2011

WO 0249801	A1	27-06-2002	AT 356688 T	15-04-2007
			AU 1941602 A	01-07-2002
			CA 2432466 A1	27-06-2002
			DE 60127305 T2	20-12-2007
			EP 1351798 A1	15-10-2003
			JP 4235449 B2	11-03-2009
			JP 2004516152 A	03-06-2004
			KR 20030072569 A	15-09-2003
			US 2004093989 A1	20-05-2004
			WO 0249801 A1	27-06-2002
			ZA 200304641 B	19-07-2004
