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Herrero & Asociados, S.L.
Cedaceros, 1
28014 Madrid
ESPAGNE

Date

23.10.19

Reference 20181004	Application No./Patent No. 17759318.3 - 1008 / 3425194 PCT/ES2017070116
Applicant/Proprietor Perga Ingenieros, S.L.	

Communication

The extended European search report is enclosed.

The extended European search report includes, pursuant to Rule 62 EPC, the supplementary European search report (Art. 153(7) EPC) and the European search opinion.

Copies of documents cited in the European search report are attached.

☒ 0 additional set(s) of copies of such documents is (are) enclosed as well.

Refund of the search fee

If applicable under Article 9 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.

Should you wish to further prosecute this application in the examination phase, your attention is drawn to the provisions of Rule 70a EPC. An invitation to respond to the extended European search report will be issued shortly (R. 70(2) EPC).



Information on Search Strategy - Pilot phase (see OJ 2015, A86)

The type of information contained in this sheet may change during the pilot for improving the usefulness of this new service.

Application Number

EP 17 75 9318

TITLE: TURBINE GENERATOR DEVICE FOR PRODUCING ELECTRICAL ENERGY AND ASSOCIATED METHODS OF OPERATION AND INSTALLATION

APPLICANT: Perga Ingenieros, S.L.

IPC CLASSIFICATION: F03B17/06, F03B13/10, F03B13/08, F03B13/00

EXAMINER: Di Renzo, Raffaele

CONSULTED DATABASES: EPODOC, WPI

CLASSIFICATION SYMBOLS DEFINING EXTENT OF THE SEARCH:

IPC:

CPC: F05B2220/20, F03B13/00, F05B2220/7066, F05B2220/602

FI/F-TERMS:

KEYWORDS OR OTHER ELEMENTS FEATURING THE INVENTION:

Turbogenerator for hydroelectric energy production comprising a turbine and a generator arranged in a leak-tight tubular casing having a rear elastic diaphragm and containing an antifreeze liquid between stator and rotor.

SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application Number
EP 17 75 9318

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	EP 2 022 978 A2 (GREENPOWER SRL [IT]) 11 February 2009 (2009-02-11) * paragraph [0016] - paragraph [0036]; figures *	1-12	INV. F03B17/06 F03B13/10 F03B13/08 F03B13/00
A	EP 2 420 668 A2 (PERGA INGENIEROS S L [ES]) 22 February 2012 (2012-02-22) * paragraph [0030] - paragraph [0034]; figure 1 *	1-12	
A	GB 2 257 476 A (AIRDRI LTD [GB]) 13 January 1993 (1993-01-13) * abstract; figures *	1-12	
A	GB 2 499 114 A (GEN ELECTRIC [US]) 7 August 2013 (2013-08-07) * page 5, line 8 - line 17 * * page 7, line 17 - page 8, line 1 * * page 13, line 23 - page 14, line 8 *	1-12	
			TECHNICAL FIELDS SEARCHED (IPC)
			F03B
The supplementary search report has been based on the last set of claims valid and available at the start of the search.			
Place of search Munich		Date of completion of the search 30 September 2019	Examiner Di Renzo, Raffaele
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 17 75 9318

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

30-09-2019

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 2022978	A2	11-02-2009	NONE	

EP 2420668	A2	22-02-2012	CY 1116141 T1	08-02-2017
			DK 2420668 T3	05-01-2015
			EP 2420668 A2	22-02-2012
			ES 2400764 A2	12-04-2013
			ES 2527017 T3	19-01-2015
			HR P20141211 T1	13-02-2015
			PT 2420668 E	29-12-2014
			SI 2420668 T1	27-02-2015
			SM T201500008 B	05-03-2015

GB 2257476	A	13-01-1993	NONE	

GB 2499114	A	07-08-2013	CN 103227521 A	31-07-2013
			DE 102013100876 A1	01-08-2013
			GB 2499114 A	07-08-2013

The examination is being carried out on the **following application documents**

Description, Pages

1-11 as published

Claims, Numbers

1-12 as published

Drawings, Sheets

1/3-3/3 as published

1 Reference is made to the following document; the numbering will be adhered to in the rest of the procedure.

D1 EP 2 022 978 A2 (GREENPOWER SRL [IT]) 11 February 2009
(2009-02-11)

2 The claims appear to fulfill the requirements of Article 52(1) EPC with respect to the available prior art, however amendments are required in order to overcome the following objections:

2.1 Although claim 1 is drafted in the two-part form, the features that:
"the generator element axially coupled to the turbine (2) comprises a leak-tight tubular casing (4) which is leak-tight with respect to the circulating fluid inside the cylindrical tube (1), wherein said casing (4) comprises therein:
- a rotor (5) coupled to said coupling shaft (3) and a stator (6) at least partially surrounding said rotor (5), wherein said casing (4) has two bases: one of the bases comprising a hole for the passage of the coupling shaft (3) to the turbine (2), and the other base comprising an elastic diaphragm (7) configured for absorbing pressures from the outside of the tubular casing (4) to the inside thereof;" are incorrectly placed in the characterising portion, as these feature appear to be disclosed in D1 in combination with the features placed in the preamble (Rule 43(1) EPC).

- 2.2 To meet the requirements of Rule 42(1)(b) EPC, D1 should be identified in the description and the relevant background art disclosed therein should be briefly discussed.
- 3 The Applicant is requested to file new claims and adapted description pages which take account of the above comments.