

(11) **EP 2 055 959 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 30.09.2015 Bulletin 2015/40

(51) Int Cl.: **F04D 15/00** (2006.01)

F04D 29/46 (2006.01)

(43) Date of publication A2: **06.05.2009 Bulletin 2009/19**

(21) Application number: 08004757.4

(22) Date of filing: 14.03.2008

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated Extension States:

AL BA MK RS

(30) Priority: 29.10.2007 IT MI20072078

(71) Applicant: METELLI S.p.A. 25033 Cologne BS (IT)

(72) Inventors:

 Armellin, Luca 25082 Botticino (BR) (IT) Don, Alessandro 25089 Villanuova sul Clisi (BR) (IT)

Gatelli, Fabio
 25021 Bagnolo Mella (BR) (IT)

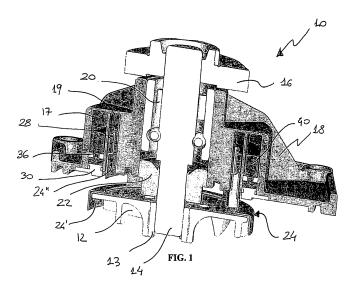
Tanghetti, Giulio
 25063 Gardone Val Trompia (BR) (IT)

(74) Representative: Lecce, Giovanni LECCE & CALCIATI S.r.I. Internazionale Brevetti Via Ariberto 24, 20123 Milan (IT)

(54) Pump for engine cooling circuits with magnetic-actuated flow regulator

(57) A pump (10, 10') for the circulation of a cooling fluid into a device such as an internal combustion engine or a fuel cell and provided with a magnetic-actuated flow regulator, said pump comprising an impeller (12) keyed to the end of a rotation shaft (14) connected to a means suitable for transmitting the rotary motion to the shaft itself and turnably arranged, by means of one or more

bearings or brasses (20), relative to a container body (18) suitable for allowing the steady and safe fixing of the pump relative to the internal combustion engine or to the fuel cell, with said pump further comprising means for enabling/disabling the cooling fluid circulation with said magnetically-actuated means.





EUROPEAN SEARCH REPORT

Application Number EP 08 00 4757

Category		ndication, where appropriate,		elevant claim	CLASSIFICATION OF THE APPLICATION (IPC)
X A	of relevant passages EP 1 657 446 A2 (GERAETE & PUMPENBAU GMBH [DE]) 17 May 2006 (2006-05-17) * paragraphs [0001] - [0004] * * paragraphs [0047] - [0068] * * claims 1,6-7; figure 1 *		GMBH 1,	2,10,	INV. F04D15/00 F04D29/46
X A	DE 10 2005 004315 A GMBH [DE]) 10 Augus * paragraphs [0001] * paragraphs [0016] * paragraphs [0049] * paragraphs [0065] * claims 1-2; figur	t 2006 (2006-08-10 - [0003] * - [0027] * - [0051] * - [0075] *) 14	2,11, ,15 10,12,	
X A	JP 2007 138717 A (A 7 June 2007 (2007-6 * abstract * * paragraphs [0017] * claims 1,4,6; fig	06-07) - [0025] *	1,		
X A	DE 92 00 240 U1 (KU 27 February 1992 (1 * the whole documer * figure 3 *	.992-02-27)	RY) 1,		TECHNICAL FIELDS SEARCHED (IPC) F04D
Α	DE 102 35 721 A1 (6 [DE]) 12 February 2 * paragraphs [0001] * paragraphs [0053] * claims 1-4; figur	004 (2004-02-12) - [0004] * - [0065] *	GMBH 1-	15	
	The present search report has	been drawn up for all claims			
	Place of search	Date of completion of the			Examiner
Munich		24 August 2	t 2015 Nicolai, Sébastier		olai, Sēbastien
X : part Y : part docu A : tech O : non	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with anotument of the same category inclogical background-written disclosure rmediate document	E : earlier p after the her D : docume L : docume	r of the same p	t, but publis application er reasons	hed on, or

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

EP 08 00 4757

5

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.

ΕP

NONE

NONE

NONE

NONE

Patent family

member(s)

1657446 A2

DE 102004054637 A1

Publication

date

17-05-2006

10-08-2006

07-06-2007

12-02-2004

Α2

DE 9200240 U1 27-02-1992

24-08-2015

Publication

date

24-05-2006

17-05-2006

|--|

Patent document

cited in search report

DE 102005004315 A1

JP 2007138717 A

DE 10235721 A1

EP 1657446

2	20)	

25

30

35

40

45

50

55

FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82