

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2018/069838

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> <i>F02M 63/00</i> (2006.01)i; <i>F02M 47/02</i> (2006.01)i  According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>  Minimum documentation searched (classification system followed by classification symbols) F02M  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		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 102015113980 A1 (DENSO CORP [JP]; NIPPON SOKEN [JP]) 03 March 2016 (2016-03-03) paragraphs [0064] - [0087], [0121]; claims 1-8; figures 1-10 paragraph [0292]	1-15
X	EP 3150839 A1 (DELPHI INT OPERATIONS LUXEMBOURG S À R L [LU]) 05 April 2017 (2017-04-05) claim 1; figures 1-4	1-15
X	EP 2628940 A1 (BOSCH GMBH ROBERT [DE]) 21 August 2013 (2013-08-21) paragraphs [0017] - [0020]; claim 8; figures 2-4	1-15
X	WO 2016026595 A1 (DELPHI INTERNAT OPERATIONS LUXEMBOURG S À R L [LU]) 25 February 2016 (2016-02-25)	1-10,13
A	page 7, line 10 - page 8, line 28; claim 1; figures 1,3	11,12,14,15
X	DE 19823937 A1 (SIEMENS AG [DE]) 02 December 1999 (1999-12-02) claim 1; figure 3a	1
A	DE 102012209841 A1 (BOSCH GMBH ROBERT [DE]) 12 December 2013 (2013-12-12) figures 1-4	1-14
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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 “E” earlier application or patent but published on or after the international filing date “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) “O” document referring to an oral disclosure, use, exhibition or other means “P” document published prior to the international filing date but later than the priority date claimed “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 “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 “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 “&” document member of the same patent family		
Date of the actual completion of the international search <b>28 September 2018</b>		Date of mailing of the international search report <b>09 October 2018</b>
Name and mailing address of the ISA/EP <b>European Patent Office p.b. 5818, Patentlaan 2, 2280 HV Rijswijk Netherlands</b> Telephone No. (+31-70)340-2040 Facsimile No. (+31-70)340-3016		Authorized officer <b>Boye, Michael</b>  Telephone No.

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Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 03004857 A1 (BOSCH GMBH ROBERT [DE]; BOECKING FRIEDRICH [DE]) 16 January 2003 (2003-01-16) page 5, line 9 - page 6, line 38; claim 1; figure 3	1,6
A	WO 2007098621 A1 (GANSER HYDROMAG [CH]; GANSER MARCO [CH]) 07 September 2007 (2007-09-07) page 13, line 29 - page 15, line 6; figure 2	6

**INTERNATIONAL SEARCH REPORT**  
**Information on patent family members**

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DE	102015113980	A1	03 March 2016	NONE	
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				ZA 200807310 B	25 November 2009