

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2019/072114

**A. CLASSIFICATION OF SUBJECT MATTER****F16D 51/00**(2006.01)i

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)

F16D

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 Y A	JP 2012197925 A (MITSUBISHI ELECTRIC CORP) 18 October 2012 (2012-10-18) paragraph [0026]; figure 1	1-8,10,11 9 12,13
X A	US 3757903 A (MC LANE C) 11 September 1973 (1973-09-11) column 3, lines 2-56; figures 1,2	1,2,8,10-13 3-6,9
X A	EP 1598302 A1 (MITSUBISHI ELECTRIC CORP [JP]) 23 November 2005 (2005-11-23) paragraphs [0008] - [0016]; figure 2	1-8,10,11 9,12,13
Y	JP 2012107685 A (HOSEI BRAKE IND) 07 June 2012 (2012-06-07) paragraph [0023]; figure 3	9

 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

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"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

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"&amp;" document member of the same patent family

Date of the actual completion of the international search

23 October 2019

Date of mailing of the international search report

05 November 2019

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

International application No.

**PCT/EP2019/072114**

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
JP	2012197925	A	18 October 2012	JP	5672102	B2	18 February 2015
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US	3757903	A	11 September 1973	CA	970295	A	01 July 1975
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EP	1598302	A1	23 November 2005	CN	1688503	A	26 October 2005
				EP	1598302	A1	23 November 2005
				JP	WO2004076328	A1	01 June 2006
				KR	20040101561	A	02 December 2004
				WO	2004076328	A1	10 September 2004
JP	2012107685	A	07 June 2012	NONE			