

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/DE2019/100716

**A. CLASSIFICATION OF SUBJECT MATTER**

*F16H 3/00*(2006.01)i; *B60K 1/00*(2006.01)i; *B60K 6/48*(2007.10)i; *B60K 6/547*(2007.10)i; *B60K 6/54*(2007.10)i;  
*F16H 61/04*(2006.01)n; *F16H 61/684*(2006.01)n

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)

B60K; F16H

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.
A	EP 2924317 A1 (HYCORE CO LTD [KR]) 30 September 2015 (2015-09-30) paragraph [0130]; figure 2	1-10
A	JP 2012147598 A (TOYOTA MOTOR CORP) 02 August 2012 (2012-08-02)	1-10
A	DE 60016157 T2 (HITACHI LTD [JP]) 01 December 2005 (2005-12-01) figures 1,3	1-10

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  
 “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

**06 November 2019**

Date of mailing of the international search report

**15 November 2019**

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

International application No.

**PCT/DE2019/100716**

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
EP	2924317	A1	30 September 2015	CN	104822968	A	05 August 2015
				EP	2924317	A1	30 September 2015
				JP	6213790	B2	18 October 2017
				JP	2016502043	A	21 January 2016
				KR	101489933	B1	04 February 2015
				US	2015300472	A1	22 October 2015
				WO	2014081105	A1	30 May 2014
JP	2012147598	A	02 August 2012	NONE			
DE	60016157	T2	01 December 2005	DE	60016157	T2	01 December 2005
				EP	1122109	A2	08 August 2001
				JP	3706290	B2	12 October 2005
				JP	2001213181	A	07 August 2001
				KR	20010077874	A	20 August 2001