



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 15 88 44 49

### Classification of the application (IPC):

F02B 33/00, F02M 67/02, G01L 23/24, F02D 41/18, G01D 3/02, F02M 35/10, G01M 15/00, F02M 26/02

### Technical fields searched (IPC):

G01L, F02D, G01D, F02M, G01M

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	US 5069063 A (CHROBACZEK MARTIN [DE] ET AL) 03 December 1991 (1991-12-03) * column 1, line 46 - column 2, line 16; figure 2 * * column 3, line 55 - column 4, line 39 *	1-15
X	DE 4021915 A1 (BOSCH GMBH ROBERT [DE]) 16 January 1992 (1992-01-16) * column 1, lines 12, 13, 51-57; figures 2, 3 * * column 2, line 68 - column 3, line 65 *	1-15
X	DE 69602271 T3 (RENAULT BOULOGNE BILLANCOURT [FR]) 11 November 1999 (1999-11-11) * paragraphs [0007], [0024], [0025], [0028]; figure 1 *	1-5, 8-14
A	JP H1037781 A (SUZUKI MOTOR CO) 10 February 1998 (1998-02-10) * figure 24 *	1-15
A	US 2009193904 A1 (TAKAHASHI HIDEYUKI [JP] ET AL) 06 August 2009 (2009-08-06) * figure 1 *	1

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 18 July 2018	Examiner Karstens, Thede
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### CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone	P: intermediate document
Y: particularly relevant if combined with another document of the same category	T: theory or principle underlying the invention
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

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## ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 15 88 44 49

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 18-07-2018  
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5069063	A	03-12-1991	DE 3803276 A1	17-08-1989
			EP 0397748 A1	22-11-1990
			JP 3123606 B2	15-01-2001
			JP H03502364 A	30-05-1991
			US 5069063 A	03-12-1991
			WO 8907241 A1	10-08-1989
DE 4021915	A1	16-01-1992	NONE	
DE 69602271	T3	11-11-1999	DE 69602271 D1	02-06-1999
			DE 69602271 T2	11-11-1999
			EP 0846223 A1	10-06-1998
			WO 9708450 A1	06-03-1997
JP H1037781	A	10-02-1998	NONE	
US 2009193904	A1	06-08-2009	DE 112007003140 T5	05-11-2009
			JP 2008157199 A	10-07-2008
			US 2009193904 A1	06-08-2009
			WO 2008078577 A1	03-07-2008