



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets

SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 22 79 47 81

Classification of the application (IPC):
F01P 5/10, F01P 7/16

Technical fields searched (IPC):
F01P, B60K

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	US 2016333768 A1 (SELINGER MICHAEL [DE] ET AL) 17 November 2016 (2016-11-17)	1, 2, 4, 6, 10-12
Y	* paragraphs [0011] - [0015] *	3, 5, 7, 9
A	* paragraph [0018] * * paragraph [0031] * * paragraphs [0047] - [0049] * * paragraphs [0054] - [0055] * * figure 1 *	8
Y	US 8958933 B2 (ABIHANA OSAMA A [US]; FORD GLOBAL TECH LLC [US]) 17 February 2015 (2015-02-17)	3, 5, 7, 9
A	* column 6, lines 26-48 *	8
A	JP 2012031811 A (MITSUBISHI ELECTRIC CORP) 16 February 2012 (2012-02-16)	1-12
	* paragraphs [0004] - [0032] * * figures 1-2 *	
A	WO 2008104855 A1 (TOYOTA MOTOR CO LTD [JP]; DENSO CORP [JP] ET AL.) 04 September 2008 (2008-09-04)	1-12
	* paragraph [0098] * * figures 1-10 *	
A	DE 102020105903 A1 (INT ENG IP CO LLC [US]) 17 September 2020 (2020-09-17)	1-12
	* figure 11 *	

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 24 July 2024	Examiner Schwaller, Vincent
---------------------------	--	--------------------------------

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

Disclaimer: this document has been automatically generated using data structured in accordance with WIPO standard ST.36 from the database of search reports of the European Patent Office. For technical reasons, its content and layout may differ from that of the original publication. Only the original published information is legally binding.



ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 22 79 47 81

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 24-07-2024
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2016333768	A1	17-11-2016	CN 106150657 A	23-11-2016
			DE 102015006303 A1	17-11-2016
			GB 2538587 A	23-11-2016
			US 2016333768 A1	17-11-2016
US 8958933	B2	17-02-2015	CN 103216307 A	24-07-2013
			DE 102013200539 A1	25-07-2013
			RU 2013101557 A	20-07-2014
			US 2013190954 A1	25-07-2013
			US 2015094895 A1	02-04-2015
JP 2012031811	A	16-02-2012	NONE	
WO 2008104855	A1	04-09-2008	AT E478245 T1	15-09-2010
			CN 101627192 A	13-01-2010
			EP 2129887 A1	09-12-2009
			JP 4277046 B2	10-06-2009
			JP 2008215094 A	18-09-2008
			RU 2415282 C1	27-03-2011
			US 2010083916 A1	08-04-2010
			WO 2008104855 A1	04-09-2008
DE 102020105903	A1	17-09-2020	NONE	