

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2020/063800

A. CLASSIFICATION OF SUBJECT MATTER*B25J 15/02*(2006.01)i; *B25J 15/04*(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)

B25J

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 A	JP S58217634 A (NIPPON KOKAN KK) 17 December 1983 (1983-12-17) figures 1-3	1-5,7,8,10,13,18 6,9,11,12,14-17
X A	JP S4838594 B1 (UNKNOWN) 19 November 1973 (1973-11-19) figures 1-5	1-3,10,12,13,15,18 4-9,11,14,16,17
X A	EP 3486043 A1 (SHINANO KENSHI CO [JP]; MU LAB LTD [JP]) 22 May 2019 (2019-05-22) figures 1, 7 paragraph [0036] - paragraph [0037] paragraph [0028] - paragraph [0031]	1-3,10,12,13,15,18 4-9,11,14,16,17

 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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“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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“&” document member of the same patent family

Date of the actual completion of the international search

31 August 2020

Date of mailing of the international search report

16 September 2020

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/EP2020/063800

Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
JP	S58217634	A	17 December 1983	JP	S6037858	B2	28 August 1985
				JP	S58217634	A	17 December 1983
JP	S4838594	B1	19 November 1973	NONE			
EP	3486043	A1	22 May 2019	CN	109672296	A	23 April 2019
				EP	3486043	A1	22 May 2019
				JP	6634059	B2	22 January 2020
				JP	2019072795	A	16 May 2019
				US	2019111573	A1	18 April 2019