

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2019/084730

A. CLASSIFICATION OF SUBJECT MATTER		
<i>D04B 15/44</i> (2006.01)i; <i>B65H 57/12</i> (2006.01)i; <i>B65H 59/10</i> (2006.01)i; <i>D04B 15/58</i> (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) D04B; B65H		
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	DE 202016001658 U1 (SIPRA PATENTENTWICKLUNGS- UND BETEILIGUNGSGESELLSCHAFT MBH [DE]) 01 August 2016 (2016-08-01) cited in the application	1,2,4,6,7,11-15
A	paragraph [0028] - paragraph [0040]; figures 1-6	3,5,8-10
X	JP S504782 B1 (NO TRANSLATION OF PATENTEE NAME PROVIDED) 24 February 1975 (1975-02-24)	1,3,4,6,7,10-15
A	paragraph [0003]; figures 1, 2	2,5,8,9
X	DE 3603913 A1 (TAYLOR JUN [US]) 14 August 1986 (1986-08-14)	1,2,4,6,7,11,12,15
A	page 25, line 3 - page 37, line 2; figures 1-7	3,5,8-10,13,14
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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 11 March 2020		Date of mailing of the international search report 23 March 2020
Name and mailing address of the ISA/EP European Patent Office p.b. 5818, Patentlaan 2, 2280 HV Rijswijk Netherlands Telephone No. (+31-70)340-2040 Facsimile No. (+31-70)340-3016		Authorized officer Braun, Stefanie Telephone No.

INTERNATIONAL SEARCH REPORT
Information on patent family members

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Patent document cited in search report	Publication date (day/month/year)	Patent family member(s)	Publication date (day/month/year)
DE 202016001658 U1	01 August 2016	NONE	
JP S504782 B1	24 February 1975	NONE	
DE 3603913 A1	14 August 1986	DE 3603913 A1	14 August 1986
		GB 2170828 A	13 August 1986
		IT 1187899 B	23 December 1987
		JP S61231249 A	15 October 1986
		US 4637229 A	20 January 1987