



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 20 81 85 24

Classification of the application (IPC):
B25B 13/56, B25B 13/00, B25B 13/46

Technical fields searched (IPC):
B25B

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	US 2015306745 A1 (ROSS DAVID [US]) 29 October 2015 (2015-10-29)	1-3, 14
Y	* paragraphs [0015] - [0031]; figures 1-5 *	6-8, 15
A		4, 5, 9-13
Y	WO 2005051603 A1 (MEYER ALLAN [AU]) 09 June 2005 (2005-06-09)	6-8, 15
	* page 12, line 11 - page 14, line 35; figures 1-3 *	
A	US 2018079055 A1 (WANG MIN [CN]) 22 March 2018 (2018-03-22)	6, 7
	* paragraphs [0099] - [0112]; figures 15-34 *	
A	US 2005076746 A1 (HSIEN CHIH-CHING [TW]) 14 April 2005 (2005-04-14)	1-15
	* paragraphs [0024] - [0030]; figures 1-4 *	
A	US 2016129562 A1 (DOUGLASS EARL STUART [US]) 12 May 2016 (2016-05-12)	1-15
	* paragraphs [0037] - [0054]; figures 1-4d *	
A	US 5697267 A (TSAI CHEN-CHANG [TW]) 16 December 1997 (1997-12-16)	1-15
	* column 1, line 62 - column 2, line 46; figures 1-4 *	

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 The Hague	Date of completion of the search 13 December 2022	Examiner Pastramas, Nikolaos
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CATEGORY OF CITED DOCUMENTS

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|---|--|
| 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

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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 13-12-2022
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 2015306745 A1	29-10-2015	AU 2015200327 A1 CA 2879594 A1 CN 105082027 A GB 2526205 A GB 2590801 A HK 1211537 A1 TW 201540433 A US 2015306745 A1	12-11-2015 25-10-2015 25-11-2015 18-11-2015 07-07-2021 27-05-2016 01-11-2015 29-10-2015
WO2005051603 A1	09-06-2005	NONE	
US 2018079055 A1	22-03-2018	AU 2015394039 A1 CA 2984969 A1 EP 3292956 A1 JP 6647318 B2 JP 2018514406 A US 2018079055 A1 WO 2016176817 A1	21-12-2017 10-11-2016 14-03-2018 14-02-2020 07-06-2018 22-03-2018 10-11-2016
US 2005076746 A1	14-04-2005	NONE	
US 2016129562 A1	12-05-2016	NONE	
US 5697267 A	16-12-1997	NONE	