

**SUPPLEMENTARY EUROPEAN SEARCH  
REPORT**Application number:  
EP 22 81 57 71Classification of the application (IPC):  
*E04B 2/56, E04B 1/76, E04B 1/348*Technical fields searched (IPC):  
E04B, E04C

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	DE 202020005081 U1 (WOLF WERNER O [DE]; WULF UDO G [DE]) 31 March 2021 (2021-03-31) * paragraph [0011] - paragraph [0044]; figures 4-12 *	1-8
X	US 2018073244 A1 (CONYBEARE NIGEL PAUL [GB]) 15 March 2018 (2018-03-15) * paragraph [0141] - paragraph [0274]; figures 13,16,17,20 *	1-8

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 16 August 2024	Examiner Melhem, Charbel
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**CATEGORY OF CITED DOCUMENTS**

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ANNEX TO SUPPLEMENTARY EUROPEAN  
SEARCH REPORT

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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
DE 202020005081	U1	31-03-2021	NONE		
US 2018073244	A1	15-03-2018	AU	2016240308 A1	05-10-2017
			CN	107771234 A	06-03-2018
			EP	3277895 A1	07-02-2018
			GB	2538850 A	30-11-2016
			RU	2017132885 A	06-05-2019
			US	2018073244 A1	15-03-2018
			WO	2016156855 A1	06-10-2016