



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 21 77 53 54

Classification of the application (IPC):
B21C 51/00, B21B 37/28, B21B 38/02

Technical fields searched (IPC):
B21B

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
A	JP H09174128 A (KAWASAKI STEEL CO) 08 July 1997 (1997-07-08) * abstract; figure 1 *	1, 2
A	JP 2011183429 A (HITACHI LTD) 22 September 2011 (2011-09-22) * abstract; figures 1-2 *	1, 2

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 30 June 2023	Examiner Forciniti, Marco
------------------------------	--	------------------------------

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 21 77 53 54

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 30-06-2023
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
JP H09174128	A	08-07-1997	NONE		
JP 2011183429	A	22-09-2011	JP	5363380 B2	11-12-2013
			JP	2011183429 A	22-09-2011