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## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 19 89 11 30

### Classification of the application (IPC):

C21D 1/34, C21D 9/46, C21D 11/00, B21D 37/16, B21J 1/06, B21D 5/00

### Technical fields searched (IPC):

C21D, B21D, H05B

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	US 2015075678 A1 (KIM KYUNG-BO [KR]) 19 March 2015 (2015-03-19) * paragraphs [0003], [0008] - [0011], [0021] - [0028] * * figures 1,2 *	1-8
X	DE 3728041 A1 (MESSER GRIESHEIM GMBH [DE]) 02 March 1989 (1989-03-02) * page 3, lines 11-12 * * page 3, lines 43-57 * * page 3, line 61 - page 4, line 3 * * page 4, lines 12-28 * * page 4, line 26 - page 5, line 10 * * table 1 * * figures 1-4 *	1-8
X	DE 102013011572 A1 (AUDI AG [DE]) 15 January 2015 (2015-01-15) * paragraphs [0001], [0006], [0010], [0015], [0017], [0019] - [0023], [0029], [0030], [0034], [0035] * * figures 1-4 *	1, 6
A	DE 102013111379 A1 (HYUNDAI MOTOR CO LTD [KR]; KOREA ADVANCED INST SCI & TECH [KR]) 02 October 2014 (2014-10-02) * paragraphs [0002], [0004] - [0008], [0018] - [0023], [0026], [0027] * * figures 1-7 *	1-8
A	DE 1160815 B (HOESCH AG) 09 January 1964 (1964-01-09) * the whole document *	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 03 February 2022	Examiner Stocker, Christian
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### 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

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## ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 18 89 11 30

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 03-02-2022  
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