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(54) Method for manufacturing discs for wheels, particularly for commercial vehicles

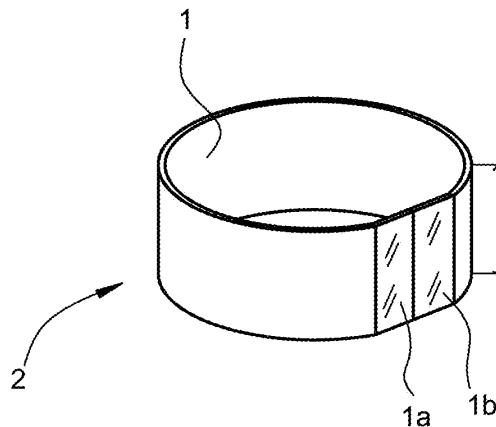
(57) The method comprises the operations of:

- providing a strip of sheet metal (1) substantially shaped like an elongated parallelogram with an essentially uniform thickness;
- bending such a strip of sheet metal (1) and welding together the end portions (1a, 1b) so as to make a substantially cylindrical ring; and
- subjecting the ring (2) to press-moulding and shaping operations through plastic deformation so as to give it a desired shape.

The strip of sheet metal (1) is bent so that its end portions (1a, 1b) are level and such end limbs (1a, 1b) are brought together and butt welded substantially on a same plane, so as to obtain a ring (2) which has a chordal flattened wall portion (1a, 1b).

Before undergoing the aforementioned process-moulding and shaping operations, the ring (2) is subjected to a preliminary rounding operation through radial expansion.

FIG. 2





EUROPEAN SEARCH REPORT

Application Number
EP 09 16 3363

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)										
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim											
X	JP 2005 000967 A (SUMITOMO LIGHT METAL IND) 6 January 2005 (2005-01-06) * figures 1-3 *	1-12	INV. B21D53/30										
Y,D	EP 1 867 408 A1 (GIANETTI RUOTE SPA [IT]) 19 December 2007 (2007-12-19) * the whole document *	1-12											
Y	US 1 931 163 A (KRANZ HARRY W ET AL) 17 October 1933 (1933-10-17) * figures 2-5 *	1-12											
A	US 2 983 033 A (COX DARWIN S) 9 May 1961 (1961-05-09) * the whole document *	1-12											
A	JP 2005 007407 A (HONDA MOTOR CO LTD) 13 January 2005 (2005-01-13) * the whole document *	1-12											
			TECHNICAL FIELDS SEARCHED (IPC)										
			B21D										
1	The present search report has been drawn up for all claims												
	Place of search	Date of completion of the search	Examiner										
	Munich	29 December 2011	Vinci, Vincenzo										
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ON EUROPEAN PATENT APPLICATION NO.

EP 09 16 3363

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 The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

29-12-2011

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
JP 2005000967	A	06-01-2005		JP 4393118 B2		06-01-2010
				JP 2005000967 A		06-01-2005
EP 1867408	A1	19-12-2007		NONE		
US 1931163	A	17-10-1933		NONE		
US 2983033	A	09-05-1961		NONE		
JP 2005007407	A	13-01-2005		JP 4322055 B2		26-08-2009
				JP 2005007407 A		13-01-2005