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(11) **EP 1 679 142 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**19.07.2006 Bulletin 2006/29**

(51) Int Cl.:  
**B22D 13/04<sup>(2006.01)</sup> B22D 13/10<sup>(2006.01)</sup>**

(43) Date of publication A2:  
**12.07.2006 Bulletin 2006/28**

(21) Application number: **06425007.9**

(22) Date of filing: **10.01.2006**

(84) Designated Contracting States:  
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR  
HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI  
SK TR**  
Designated Extension States:  
**AL BA HR MK YU**

(30) Priority: **11.01.2005 IT MN20050001**

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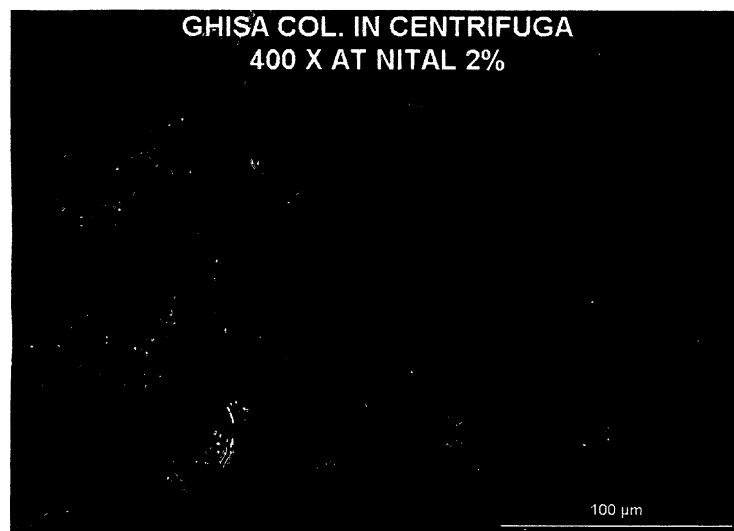
(54) **Brake disc production method and products thereby obtained**

(57) The invention describes a brake disc production system and the products thereby obtained, featuring a cast iron melting phase and a subsequent plurality of phases in which a metal mould is made to rotate and is lined with a particular refractory material. There follows a phase in which the liquefied cast iron is removed from the furnace then poured into the rotating mould through a special opening.

At this point, the mould is cooled by means of nozzles

which spray water at the said mould's external surface, and the cylindrical element obtained at the end of the cooling phase is then extracted.

Finally, a shot blasting phase is carried out in which all the residues are cleaned off the cylindrical element, followed by a phase in which the structural and mechanical characteristics of the said element are checked. Finally, the cylindrical element is cut into "slices" to realise the single discs.



**FIG. 3**

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# EUROPEAN SEARCH REPORT

Application Number  
EP 06 42 5007

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                           |                                  |                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------|
| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Citation of document with indication, where appropriate, of relevant passages                                                                                                             | Relevant to claim                | CLASSIFICATION OF THE APPLICATION (IPC) |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PATENT ABSTRACTS OF JAPAN<br>vol. 012, no. 257 (M-719),<br>20 July 1988 (1988-07-20)<br>& JP 63 040658 A (YAMAHA MOTOR CO LTD),<br>22 February 1988 (1988-02-22)<br>* abstract *<br>----- | 5-11                             | INV.<br>B22D13/04<br>B22D13/10          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                           |                                  | TECHNICAL FIELDS<br>SEARCHED (IPC)      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                           |                                  | F16D<br>B22D                            |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                           |                                  |                                         |
| Place of search                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                           | Date of completion of the search | Examiner                                |
| The Hague                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                           | 11 May 2006                      | Hodiamont, S                            |
| CATEGORY OF CITED DOCUMENTS<br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document<br>T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                                                                                                                                                                           |                                  |                                         |

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EPO FORM 1503 03.82 (P04C01)

