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## (54) Low-pressure die-casting apparatus

(57) A low-pressure die-casting apparatus, of the type comprising:

- at least one furnace (11, 111) adapted to produce the molten mass to be cast into the die (12),
- at least one station (18, 118) for unloading the cast part and/or loading at least one core to be inserted in the die (12),
- at least one die supporting fixture (14, 114), which is associated with means for translational motion on a guide (13, 113) proximate to which the at least one furnace (11, 111) and a station (18, 118) for unloading the part and/or loading at least one core are arranged,
- means (31) for preparing for the step for filling the die (12),

and comprising rotation means (30) for the die supporting fixture (14, 114) which are suitable to arrange the fixture (14, 114) so that the die (12) is located on one chosen side of the guide (13, 113) for interaction with preset apparatus components.

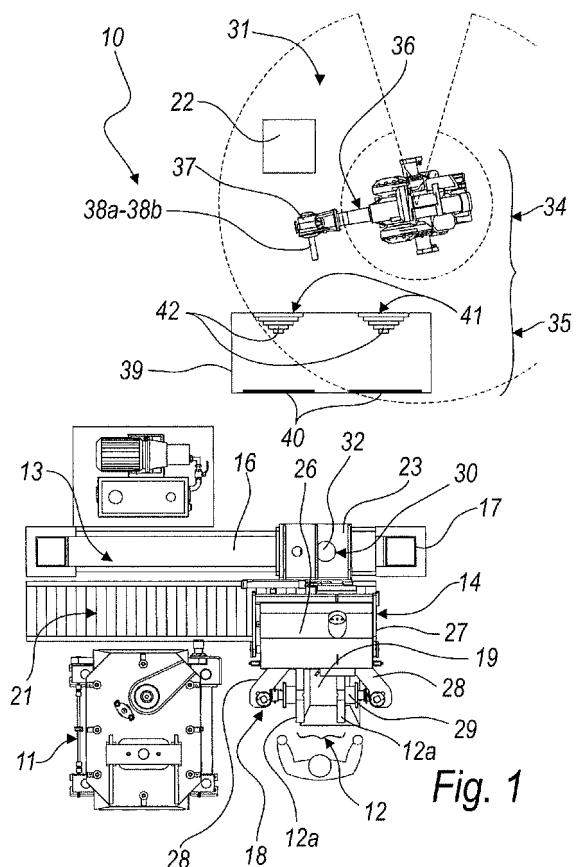


Fig. 1



## EUROPEAN SEARCH REPORT

Application Number  
EP 06 12 5985

DOCUMENTS CONSIDERED TO BE RELEVANT		Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages		
X	EP 1 481 749 A (IMR S P A [IT]) 1 December 2004 (2004-12-01) * paragraph [0017] - paragraph [0069] * * figures 3-7 *	1-9	INV. B22D18/04 B22D33/02
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X	US 3 908 748 A (NOISSER ALOIS ET AL) 30 September 1975 (1975-09-30) * figures 1-5 * * column 1, line 63 - column 9, line 19 *	1-9	
X	EP 0 811 447 A (IMR SRL [IT] IMR S P A [IT]) 10 December 1997 (1997-12-10) * column 1, line 22 - column 3, line 48 * * figures 1-9 *	1-9	
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		TECHNICAL FIELDS SEARCHED (IPC)	
		B22D	
2		The present search report has been drawn up for all claims	
2		Place of search Date of completion of the search Examiner	
Munich		10 December 2008 Zimmermann, Frank	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			



Application Number

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### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
  
  
  
  
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-9

- The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION  
SHEET B**Application Number  
EP 06 12 5985

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

**1. claims: 1-9**

Low-pressure die-casting apparatus comprising a furnace, a loading /unloading station, a supporting fixture associated with a guide, means for preparing for the step of filling the die and means for rotating the support fixture.

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**2. claims: 10-13**

Low-pressure die-casting apparatus comprising a furnace, a loading /unloading station, a supporting fixture associated with a guide, means for preparing for the step of filling the die whereby the means for preparing the step of filling the die comprise a fixture for cleaning and a fixture for distributing a release agent on the dies.

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**3. claim: 14**

Low-pressure die-casting apparatus comprising a furnace, a loading /unloading station, a supporting fixture associated with a guide, means for preparing for the step of filling the die and a tray for depositing extracted cast parts comprised in the unloading station.

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ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

EP 06 12 5985

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.

10-12-2008

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