

Title (en)  
MOLTEN METAL FEEDER

Title (de)  
ZUFÜHRVORRICHTUNG FÜR METALLSCHMELZE

Title (fr)  
DISPOSITIF D'ALIMENTATION EN METAL EN FUSION

Publication  
**EP 1407843 A4 20060607 (EN)**

Application  
**EP 02728223 A 20020603**

Priority  

- JP 0205451 W 20020603
- JP 2001170990 A 20010606
- JP 2001229873 A 20010730
- JP 2002121225 A 20020423

Abstract (en)  
[origin: EP1407843A1] A molten metal feeder, has an entire valve box (19) is installed under the liquid level of molten metal (C) in a metal melting furnace (D) so the molten metal can be accurately fed to molds while preventing metallic oxides from being sucked into a cylinder case. A discharge passage (23) is formed at the bottom end of the valve element moving space (24) to open upward, a suction passage (22) is formed to open to the valve element moving space at a position higher than the discharge passage (23), a lower supporting seat (29) is formed annularly in the discharge passage (23) around an opening part to the valve element moving space (24), a lower contact part (31) coming into contact annularly with the lower supporting seat according to the lowering movement of the valve element (21) is formed on the valve element, and the valve element is moved to a suction portion where the lower contact part comes into contact annularly with the lower supporting seat (29) to cut out the communication of the discharge passage with a suction and discharge passage (8) to suck the molten metal (C) in the metal melting furnace (D) into a cylinder case (4).

IPC 1-7  
**B22D 35/00**; **B22D 17/02**

IPC 8 full level  
**B22D 17/04** (2006.01); **B22D 17/30** (2006.01); **B22D 39/00** (2006.01); **B22D 39/02** (2006.01)

CPC (source: EP KR)  
**B22D 17/02** (2013.01 - KR); **B22D 17/10** (2013.01 - EP); **B22D 17/30** (2013.01 - EP); **B22D 39/023** (2013.01 - EP)

Citation (search report)  

- [X] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 05 31 May 1996 (1996-05-31)
- [X] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 05 31 May 1996 (1996-05-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 20 10 July 2001 (2001-07-10)
- See references of WO 02100574A1

Cited by  
EP1795283A1; EP3919204A1; US7445748B2; WO2011061775A3; US11376656B2

Designated contracting state (EPC)  
DE FR GB IT NL

DOCDB simple family (publication)  
**EP 1407843 A1 20040414**; **EP 1407843 A4 20060607**; CN 1277639 C 20061004; CN 1538888 A 20041020; KR 20030097911 A 20031231; TW 528625 B 20030421; WO 02100574 A1 20021219

DOCDB simple family (application)  
**EP 02728223 A 20020603**; CN 02815508 A 20020603; JP 0205451 W 20020603; KR 20037015906 A 20031204; TW 91112243 A 20020606