

Title (en)  
DEVICE FOR COMPACTING FOUNDRY MOULD SAND BY A GAS PRESSURE METHOD

Publication  
**EP 0127069 B1 19880810 (DE)**

Application  
**EP 84105563 A 19840516**

Priority  
DE 3319030 A 19830526

Abstract (en)  
[origin: US4588017A] An apparatus for the compaction of foundry sand using a pressurized gas method is made up of a conventional flask closed by a pattern plate with a pattern and has a filling frame and a chamber over the foundry sand heaped on the pattern. A high-speed filling of the chamber is carried out by gas under pressure in a matter of milliseconds so that the foundry sand is compacted while at the same time the pressure falls. In order to be certain of an even and reproducible compacting effect on the sand whatever way of producing the gas pressure is used, i.e. with or without an explosion of a gas mixture to get a gas pressure wave, use is made of a piston plate that is placed a small distance over the surface of the sand filling for separating the sand from the gas pressure space at least at the beginning of the action of the gas, such piston plate being freely movable and having an outline generally the same as the free cross section of the filling frame and the flask. The piston plate is returned to its initial position after sand compaction.

IPC 1-7  
**B22C 9/00**; **B22C 15/00**; **B22C 15/22**

IPC 8 full level  
**B22C 15/08** (2006.01); **B22C 9/00** (2006.01); **B22C 15/00** (2006.01)

CPC (source: EP US)  
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Cited by  
EP0849017A1; EP0720878A1; GB2230722A; GB2230722B

Designated contracting state (EPC)  
CH DE FR IT LI

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**EP 0127069 A2 19841205**; **EP 0127069 A3 19860430**; **EP 0127069 B1 19880810**; DD 218848 A5 19850220; DE 3319030 A1 19841129; DE 3319030 C2 19890608; DE 3473238 D1 19880915; JP H0417744 B2 19920326; JP S606246 A 19850112; US 4588017 A 19860513

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