

Title (en)

A head of light material for internal combustion engines, with sintered steel inserts, and a method for its manufacture.

Title (de)

Leichtmetallzylinderkopf für eine Brennkraftmaschine mit Sinterstahl-Einsatzteilen und Prozess zu ihrer Herstellung.

Title (fr)

Culasse à matériel léger pour un moteur à combustion interne avec pièce intercalée en acier fritté et méthode de fabrication.

Publication

EP 0332586 A1 19890913 (EN)

Application

EP 89830081 A 19890228

Priority

IT 6720588 A 19880311

Abstract (en)

The device comprises a body (1, 2) with first and second apertures (3, 4) which can communicate with each other through a chamber (8, 9) defined in the body and are intended for connection to a vacuum source and an accumulator or other vacuum-using device, respectively. The body also has a third aperture (19) through which the chamber (8, 9) communicates with the atmosphere. An on-off valve (11, 13) is formed in the chamber (8, 9) for interrupting the communication between the first and second apertures (3, 4). This valve (11, 13) comprises a seat (11) and a movable obturator (13) controlled by an operating piston (10) which is slidable in the chamber (8, 9) and sealingly separates the first and second apertures (3, 4) from the third aperture (19). The piston (10) is adapted to close the valve (11, 13) against the action of resilient biasing means (18) which tend to open the valve (11, 13) when the vacuum applied to the second aperture (4) of the body exceeds a predetermined value.

IPC 1-7

B22F 9/16; F01L 3/02; F01L 3/22; F02F 1/38

IPC 8 full level

F01L 3/02 (2006.01); **F01L 3/22** (2006.01); **F02F 1/38** (2006.01); **F02B 3/06** (2006.01); **F02F 1/24** (2006.01)

CPC (source: EP)

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Citation (search report)

- [A] US 3176666 A 19650406 - WHITEHEAD HERBERT A
- [A] EP 0167034 A1 19860108 - SUMITOMO ELECTRIC INDUSTRIES [JP], et al
- [A] PATENT ABSTRACTS OF JAPAN, vol. 8, no. 16 (M-270)[1453], 24th January 1984, page 94 M 270; & JP-A-58 177 402 (MITSUBISHI JUKOGYO K.K.) 18-10-1983

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FR2666847A1; WO03006811A1

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