

Title (en)  
Piston cartridge with venting means

Title (de)  
Kartuschenkolben mit Entlüftung

Title (fr)  
Piston de cartouche muni d'un évent

Publication  
**EP 1308218 B1 20061102 (DE)**

Application  
**EP 02015303 A 20020710**

Priority  
DE 20117778 U 20011031

Abstract (en)  
[origin: US2003079798A1] A cartridge plunger with at least one gas evacuation opening and at least one gas evacuation element covering the cartridge plunger opening. For a simple and dependable gas evacuation and to prevent any undesirable leakage of the filler material, the gas evacuation element is at least one cover disk that forms a labyrinth path running transverse to the plunger axis. The path is located between the contact surface of the cover disk facing the gas evacuation opening and a corresponding contact surface on the cartridge plunger.

IPC 8 full level  
**B05C 17/01** (2006.01); **B05C 17/005** (2006.01); **B65D 83/00** (2006.01)

CPC (source: EP US)  
**B05C 17/00576** (2013.01 - EP US); **B05C 17/00579** (2013.01 - EP US); **B65D 83/0005** (2013.01 - EP US)

Cited by  
EP1514812A1; US7621428B2; US7909211B2; EP3597311A1; DE102019118627A1; US9844796B2; US10279935B2

Designated contracting state (EPC)  
CH DE FR GB IT LI

DOCDB simple family (publication)  
**DE 20117778 U1 20030320**; DE 50208587 D1 20061214; EP 1308218 A2 20030507; EP 1308218 A3 20050601; EP 1308218 B1 20061102; US 2003079798 A1 20030501; US 6685063 B2 20040203

DOCDB simple family (application)  
**DE 20117778 U 20011031**; DE 50208587 T 20020710; EP 02015303 A 20020710; US 21605302 A 20020810