

Title (en)  
DOSING PUMP HAVING A PLUNGER

Publication  
**EP 0141068 A3 19860514 (DE)**

Application  
**EP 84109239 A 19840803**

Priority  
DE 3329006 A 19830811

Abstract (en)  
[origin: EP0141068A2] 1. Plunger piston metering pump (1) with a metering piston (2) constructed as plunger piston and with a conveying cylinder, preferably for the metering of an additive liquid into the injection point of a main liquid duct, in particular water duct, with an exchangeable insert part (11), which is subject to wear and which being constructed as pre-assembled unit comprises the metering piston (2) and piston-guiding elements, characterised thereby, that the insert part (11), which is subject to wear, includes the conveying cylinder with piston-centering unit (13) and upper piston-guiding part (16).

IPC 1-7  
**F04B 13/00**

IPC 8 full level  
**F04B 13/00** (2006.01)

CPC (source: EP)  
**F04B 13/00** (2013.01)

Citation (search report)

- AT 363782 B 19810825 - LANG APPARATEBAU GMBH [DE]
- DE 1009029 B 19570523 - GRATZMULLER JEAN LOUIS
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Designated contracting state (EPC)  
AT BE CH DE FR LI NL

DOCDB simple family (publication)  
**EP 0141068 A2 19850515; EP 0141068 A3 19860514; EP 0141068 B1 19891220; EP 0141068 B2 19940316;** AT E48898 T1 19900115;  
DE 3329006 A1 19850228; DE 3329006 C2 19931209; DE 3480802 D1 19900125

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