

Title (en)

Manually operated sprayer for liquids.

Title (de)

Manuell betätigbarer Flüssigkeitszerstäuber.

Title (fr)

Pulvérisateur pour liquides actionnable manuellement.

Publication

**EP 0441377 B1 19941207 (DE)**

Application

**EP 91101690 A 19910207**

Priority

- DE 4004024 A 19900209
- DE 9001517 U 19900209

Abstract (en)

[origin: EP0441377A2] In a manually operated sprayer for liquids, the piston (6) of a piston pump, which piston can be displaced by means of a handle (3) counter to the force of a restoring spring (5), has two annular seals (8, 9) which can be distanced axially from one another with such a spacing that a ventilation line (32), which opens into its annular intermediate space (34), for a reservoir which is connected to the sprayer is sealed with respect to the pump chamber (7) both in the position of rest and in the maximum displacement position of the piston by the one annular seal (8) and is sealed with respect to the open end of the pump cylinder (10) by the other annular seal (9), in which case outside the position of rest there is a connection to the atmosphere only via a ventilation groove (37) formed in the wall of the pump cylinder. <IMAGE>

IPC 1-7

**B05B 11/00**

IPC 8 full level

**B05B 11/00** (2006.01)

CPC (source: EP)

**B05B 11/0044** (2018.07); **B05B 11/1011** (2023.01)

Cited by

EP0750947A3; FR2810301A1; FR2711554A1; US5492252A; FR2732188A1; ES2133214A1; WO0196030A1

Designated contracting state (EPC)

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**EP 0441377 A2 19910814; EP 0441377 A3 19920226; EP 0441377 B1 19941207**; DE 4004024 A1 19910814; DE 4004024 C2 19930729; DE 59103730 D1 19950119; DE 9001517 U1 19900412

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