

Title (en)
Finger operated spray pump

Title (de)
Fingerbetätigte Zerstäuberpumpe

Title (fr)
Pompe de pulvérisation actionné par un doigt

Publication
EP 1386670 A3 20040728 (EN)

Application
EP 03015730 A 20030710

Priority
GB 0217866 A 20020801

Abstract (en)
[origin: EP1386670A2] A finger operated spray pump comprises a liquid reservoir (1) intended to contain a supply of liquid (2), a cylinder (3) connected at one end to an atomiser (5) and intended to contain a portion of liquid from the reservoir (1), a part of which is to be ejected through the atomiser (5), a piston (6) sealingly mounted within the cylinder (3) and movable within and relative to the cylinder (3) in a spray stroke a passageway means (7) connecting the cylinder (3) with the supply of liquid (2) in the liquid reservoir (1), a one way valve means (8) at the passageway means (7) allowing a flow of liquid only from the supply of liquid (2) into the cylinder (3), and a finger operated actuator (9) displaceable by finger pressure relative to the liquid reservoir (1) in the spray stroke. Here the outer diameter of the piston (6) and the corresponding inner diameter of the cylinder (3) is between about 0,5 mm and about 4,0 mm the nozzle-diameter of the atomiser (5) is between 15 μ m and 150 μ m the operating pressure within the cylinder (3) during the spray stroke with average finger force is between 10 bar and 400 bar preferably between about 50 bar and about 100 bar, and the atomiser (5), the cylinder (3), the piston (6) and the one way valve means (8) are manufactured from materials and in a way to withstand the elevated operating pressure. <IMAGE>

IPC 1-7
B05B 11/00

IPC 8 full level
B65D 83/76 (2006.01); **B05B 11/00** (2006.01)

CPC (source: EP)
B05B 11/1001 (2023.01); **B05B 11/106** (2023.01)

Citation (search report)
• [X] EP 0627230 A2 19941207 - DMW TECH LTD [GB]
• [X] GB 2229380 A 19900926 - WINTERFLOOD SIMON BERESFORD
• [X] DE 1051744 B 19590226 - WERNER STIELER
• [X] DE 20203841 U1 20020606 - PADAR STEVEN [DE]

Cited by
CN103817033A; DE102022104802A1; DE202015009408U1; EP3097981A1; EP3315207A1; DE202017002851U1; US10588914B2; US10905697B2; DE202013002874U1; DE202013011596U1; US11179465B2; DE202019000718U1; WO2020165356A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1386670 A2 20040204; EP 1386670 A3 20040728; EP 1386670 B1 20060426; AT E324184 T1 20060515; DE 60304774 D1 20060601; DE 60304774 T2 20070510; ES 2263880 T3 20061216; GB 0217866 D0 20020911; JP 2004066231 A 20040304; JP 4331530 B2 20090916

DOCDB simple family (application)
EP 03015730 A 20030710; AT 03015730 T 20030710; DE 60304774 T 20030710; ES 03015730 T 20030710; GB 0217866 A 20020801; JP 2003204895 A 20030731