

Title (en)

Variable volume valve for a combustion powered tool

Title (de)

Ventil mit verstellbarem Volumen für verbrennungskraftbetriebenes Werkzeug

Title (fr)

Soupape à volume variable pour outil entraîné par gaz de combustion

Publication

EP 1254745 A2 20021106 (EN)

Application

EP 02291089 A 20020430

Priority

- US 84970601 A 20010504
- US 97310301 A 20011009

Abstract (en)

A variable volume metering chamber (24) and valve assembly for a combustion-powered tool includes a housing (12) defining a metering chamber (24) having an internal volume and including an inlet (20) and an outlet (22), and a plunger (122) configured for reciprocal movement relative to the chamber for adjusting the internal volume of the metering chamber. The plunger (122) is preferably adjustable by the user to alter the volume of fuel retained in the metering chamber. In the housing, a first valve (16) controls control fluid flow through the inlet, a second valve (18) controls fluid flow through the outlet, and an actuator assembly (60), connected to the valves, is sequentially operable from a first position, in which the first valve (16) is open and the second valve (18) is closed, to a second position, in which the first and second valves are both closed, and a third position, in which the first valve is closed and the second valve is open.

IPC 1-7

B25C 1/08

IPC 8 full level

B25C 1/04 (2006.01); **B25C 1/08** (2006.01); **F02M 69/52** (2006.01); **F16K 21/00** (2006.01)

CPC (source: EP KR)

B25C 1/04 (2013.01 - KR); **B25C 1/08** (2013.01 - EP)

Cited by

FR2848894A1; FR2855993A1; FR2848895A1; EP2412481A3; US7124923B2; USD910718S; EP3067158A1; EP3189939A1; AU2018207329B2; WO2006054218A1; WO2017091442A1; US11065750B2; US11978915B2; US10598377B2; US11287129B2; USD1001736S; US11992925B2; USD873301S; USD875139S; USD903716S; US10166666B2; US10654156B2; US11273544B2; TWI458599B

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1254745 A2 20021106; **EP 1254745 A3 20070815**; **EP 1254745 B1 20140409**; AU 3709202 A 20021107; AU 771247 B2 20040318; BR 0201601 A 20030311; CA 2383904 A1 20021104; CA 2383904 C 20060905; CN 1221784 C 20051005; CN 1403787 A 20030319; JP 2003056730 A 20030226; KR 20020084700 A 20021109; MX PA02004421 A 20040716; NZ 518758 A 20030926; PL 353682 A1 20021118; TW 534963 B 20030601

DOCDB simple family (application)

EP 02291089 A 20020430; AU 3709202 A 20020501; BR 0201601 A 20020503; CA 2383904 A 20020429; CN 02118805 A 20020429; JP 2002129859 A 20020501; KR 20020023667 A 20020430; MX PA02004421 A 20020502; NZ 51875802 A 20020502; PL 35368202 A 20020429; TW 91109520 A 20020503