Title (en)

Rotary positive displacement control apparatus

Title (de)

Rotationsverdrängungs - Steuerungsvorrichtung

Title (fr)

Appareil de commande de déplacement positif rotatif

Publication

**EP 1887184 A2 20080213 (EN)**

Application

**EP 07113270 A 20070726**

Priority

- CN 200610104010 A 20060731
- US 58594206 A 20061025

Abstract (en)

A rotary positive displacement control system and apparatus includes a transmission assembly, at least a compression assembly and buffer assembly, and an expansion assembly, the buffer assembly disposed between the compression and expansion assembly. The compression assembly includes multiple compression rotors with lobes intermeshing with each other, and the expansion assembly including expansion rotors with lobes intermeshing with each other. An intake and exhaust port respectively located at the compression assembly and expansion assembly. The buffer assembly has a buffer chamber being able to efficiently lead compressed gases to the expansion assembly; meanwhile, residual gases can be discharged from a first and second exhaust slots both disposed on the expansion assembly. The buffer chamber can adjust air compression ratio during process of compression to completely mix vortexes and fuel generated from a high-pressure air stream; after explosions and expansion, power output is transmitted through transmission shafts directly.

IPC 8 full level

**F01C 1/08** (2006.01); **F01C 11/00** (2006.01); **F02B 53/08** (2006.01)

CPC (source: EP)

**F01C 11/004** (2013.01); F01C 1/123 (2013.01)

Cited by

RU194219U1; RU2749935C1; RU2743607C1; EA038008B1; RU2703054C1; RU202524U1; EP3628816A1; CN113167116A; US11255258B2; WO2020064817A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

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**EP 1887184 A2 20080213**; **EP 1887184 A3 20090805**; **EP 1887184 B1 20130327**; CN 101117914 A 20080206; CN 101117914 B 20101208

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