Title (en)

SYSTEM FOR CONSTRUCTING ROTARY COMPRESSORS AND MOTORS WITH DYNAMICALLY VARIABLE VOLUMETRIC DISPLACEMENT AND COMPRESSION RATE

Title (de)

SYSTEM FÜR DEN BAU VON ROTATIONSVERDICHTERN UND MOTOREN MIT DYNAMISCH VARIABLER VOLUMETRISCHER VERDRÄNGUNG UND KOMPRESSIONSRATE

Title (fr)

SYSTÈME DE FABRICATION DE COMPRESSEURS ET DE MOTEURS ROTATIFS, AVEC DÉPLACEMENT VOLUMÉTRIQUE ET TAUX DE COMPRESSION VARIABLES DYNAMIQUEMENT

Publication

EP 2484908 A4 20150930 (EN)

Application

EP 10819757 A 20101004

Priority

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Abstract (en)

[origin: EP2484908A1] The present invention refers to a system for the construction of compressors and rotary engines comprising two rotors with one, two or more displacers per rotor, so as to create between the displacers two or more chambers. The chambers vary in volume according to the degree of separation between the piston caused by the varying and alternatively opposite velocities between the two rotors. This speed variation can be produced by various kinds of systems that are characterized by the length variation of the radius in which a regular and uniform rotary motion is transmitted or received transforming it into an oscillating motion, of varying speed, or vice versa. The new system is characterized by using jointly or separately two mechanisms. One dynamically modifies the distance between the displacers by placing the drive mechanism or the engine on the slide rails and moving it by means of a spindle, a hydraulic piston or geared system and the other dynamically modifies the beginning of the suction and compression phases preventing sealing the displacers in certain segments of the suction-compression chamber, removing a segment of the chamber by means of a drive, similar to the first one, creating a fixed or variable opening, allowing passage of fluids and preventing its displacement. The joint work of these two mechanisms monitored by a computer system powered by the sensors, enables the engine or compressor to change dynamically their parameters for an improved and efficient utilization of energy.

IPC 8 full level

F01C 1/07 (2006.01); **F01C 1/077** (2006.01); **F01C 20/10** (2006.01); **F01C 20/18** (2006.01)

CPC (source: EP US)

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Citation (search report)

- [XI] US 4338067 A 19820706 - GREENFIELD STUART T
- [XI] US 3592571 A 19710713 - DRURY CHAUNCEY R
- See references of WO 2011038474A1

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CN106640387A

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