

Title (en)  
Rotary expansible chamber device

Title (de)  
Drehbar erweiterbare Kammervorrichtung

Title (fr)  
Dispositif rotatif à chambre extensible

Publication  
**EP 2143879 A1 20100113 (EN)**

Application  
**EP 08012339 A 20080708**

Priority  
EP 08012339 A 20080708

Abstract (en)  
A rotary expansible chamber device, as a compressor or an expander, comprising a housing having an interior surface defining a chamber being open to an inlet and an outlet of said housing, a shaft defining an axis of rotation and being supported in the housing, a rotor mounted within said housing and on said shaft, and having a plurality of sealing vanes supported on the rotor to move radially to and from a retracted condition and an extended condition, said vanes sealing a radial gap between said interior surface of the housing and said rotor, said gap extending along said chamber and decreasing from a maximum to a minimum, each sealing vane having an arm-structure pivotally mounted on said rotor and a guide bearing means projecting therefrom and extending from said rotor, said housing forming a track means on its interior surface, said guide bearing means contacting and being guided by said track means in order to control each sealing vane to move between the retracted and extended conditions, characterized in that said track means forms an inner guiding surface running at least partly circumferentially around said axis of rotation and pointing to said axis of rotation, and an outer guiding surface running at least partly circumferentially around said axis of rotation and pointing away from said axis of rotation and in that said guide bearing means cooperates with the inner and/or outer guiding surfaces.

IPC 8 full level  
**F01C 1/44** (2006.01); **F01C 21/08** (2006.01)

CPC (source: EP)  
**F01C 1/44** (2013.01); **F01C 21/0836** (2013.01); **F04C 2230/602** (2013.01)

Citation (applicant)  
• US 5709188 A 19980120 - AL-QUTUB AMRO [SA]  
• JP S5455804 A 19790504 - SANYO ELECTRIC CO, et al  
• EP 0103985 A2 19840328 - WILLIAMS MACK H  
• WO 03060299 A1 20030724 - KARNES DYNO REV ENGINE INC [US], et al

Citation (search report)  
• [X] WO 03060299 A1 20030724 - KARNES DYNO REV ENGINE INC [US], et al  
• [X] GB 263127 A 19270331 - ALBERT THOREAU  
• [X] EP 0103985 A2 19840328 - WILLIAMS MACK H  
• [X] JP S5455804 A 19790504 - SANYO ELECTRIC CO, et al  
• [A] WO 9421894 A1 19940929 - HOEGDAHL ERLAND [SE]  
• [A] US 3787125 A 19740122 - TRAUT B, et al  
• [A] FR 2507256 A1 19821210 - ROVAC CORP [US]  
• [A] WO 03067033 A1 20030814 - HUETTTLIN HERBERT [DE]

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA MK RS

DOCDB simple family (publication)  
**EP 2143879 A1 20100113**; **EP 2143879 B1 20151202**; EP 2669471 A1 20131204

DOCDB simple family (application)  
**EP 08012339 A 20080708**; EP 13003983 A 20080708