

Title (en)
Soren-rotor expansion engine.

Title (de)
Schraubenexpansionsmaschine.

Title (fr)
Machine à expansion à vis hélicoïdales.

Publication
EP 0042027 A1 19811223 (DE)

Application
EP 81100882 A 19810207

Priority
DE 3022202 A 19800613

Abstract (en)
A Soren-rotor expansion engine having two Soren-rotors (25) on parallel axes, the mutually engaging blades and slots of the screw pitches of which form expansion cells, of continuously changing volume, on rotation, which alternately and intermittently come into connection with the connecting openings of a compression and ejection channel, that is to say the inlet and the outlet opening (11, 12) for the driving medium, which openings are arranged in each case in one of the two inner housing or transportation chamber end walls (9, 10) which would otherwise be virtually contacting the rotor end faces. On one of the end walls of the transportation chamber a moveable closure device (20, 22) is provided with which the cross-section of the relevant connecting opening, or the angle range in which one of the channels is connected to the expansion cells formed by the blades and slots, can be varied in terms of its position and/or extension in the circumferential direction of the rotation. In the end wall on the low-pressure side, the inlet opening can be closed by two control plates (20, 22) moveable counter to one another, which are each allocated to a rotor. The closing movement of the control plates takes place as a reduced ratio of the closing angles. The control plates are adjustable via a toothed drive (34, 37, 38). <IMAGE>

IPC 1-7
F01C 21/16

IPC 8 full level
F01C 1/16 (2006.01); **F01C 20/14** (2006.01); **F04C 18/16** (2006.01)

CPC (source: EP)
F01C 20/14 (2013.01)

Citation (search report)
• CH 326295 A 19571215 - DRESSER IND [US]
• GB 316670 A 19310122 - PATIAG PATENTVERWERTUNGSUND IN
• US 2266820 A 19411223 - SMITH FRANK E
• US 3723031 A 19730327 - BROWN A
• FR 1258653 A 19610414 - SVENSKA ROTOR MASKINER AB

Cited by
CN107461221A; CN107387169A; KR100909927B1; DE102011121274A1; US7618248B2; GB2438034A; GB2233041A; GB2438034B; DE102006021704B4

Designated contracting state (EPC)
BE CH DE FR GB IT LI

DOCDB simple family (publication)
EP 0042027 A1 19811223; AR 225674 A1 19820415; AU 6938581 A 19811217; BR 8103672 A 19820302; DE 3022202 A1 19820819; DE 3022202 C2 19891207; JP S5716201 A 19820127

DOCDB simple family (application)
EP 81100882 A 19810207; AR 28569381 A 19810612; AU 6938581 A 19810410; BR 8103672 A 19810610; DE 3022202 A 19800613; JP 6351981 A 19810428