

Title (en)

Compression device, especially for filling a tank under pressure.

Title (de)

Verdichtungsvorrichtung, insbesondere zur Druckfüllung eines Behälters.

Title (fr)

Dispositif de compression, en particulier pour le remplissage sous pression d'un réservoir.

Publication

EP 0461943 B1 19950628 (FR)

Application

EP 91401216 A 19910507

Priority

FR 9006043 A 19900515

Abstract (en)

[origin: EP0461943A2] The gas compression device comprises a motor (1), a piston (2) capable of moving linearly in a pump body, a means of transmission (T) between the motor (1) and the piston (2) capable of converting the rotary movement supplied by the motor (1) into a reciprocating translational movement of the piston (2). Means of varying the speed, comprising a cam (12) are provided for imparting a different speed to the piston (2) of the compressor according to the resistance offered to the motor (1) during a complete admission-compression cycle, in such a way that the load moment is essentially constant and the motor (1) functions at its maximum torque and therefore at its maximum efficiency. The profile of the cam (12) is determined so as to ensure an essentially isothermic compression of the gas. <IMAGE>

IPC 1-7

F04B 9/04; F04B 39/00; F04B 39/10; F04B 49/02

IPC 8 full level

F04B 35/00 (2006.01); **F04B 9/04** (2006.01); **F04B 35/01** (2006.01); **F04B 39/00** (2006.01); **F04B 39/10** (2006.01); **F04B 41/02** (2006.01); **F04B 49/18** (2006.01)

CPC (source: EP US)

F04B 9/042 (2013.01 - EP US); **F04B 39/0016** (2013.01 - EP US); **F04B 39/10** (2013.01 - EP US); **F04B 49/18** (2013.01 - EP US); **Y10T 74/1828** (2015.01 - EP US); **Y10T 74/2107** (2015.01 - EP US)

Cited by

FR3033599A1; WO2016142613A1; WO2007134633A1; WO9423202A1; WO2012097227A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI NL SE

DOCDB simple family (publication)

EP 0461943 A2 19911218; **EP 0461943 A3 19920701**; **EP 0461943 B1 19950628**; AT E124499 T1 19950715; CA 2042567 A1 19911116; CA 2042567 C 20010710; DE 69110769 D1 19950803; DE 69110769 T2 19960411; FR 2662215 A1 19911122; FR 2662215 B1 19941021; JP 2969298 B2 19991102; JP H05172053 A 19930709; US 5151015 A 19920929

DOCDB simple family (application)

EP 91401216 A 19910507; AT 91401216 T 19910507; CA 2042567 A 19910514; DE 69110769 T 19910507; FR 9006043 A 19900515; JP 20501491 A 19910515; US 69868491 A 19910513