

Title (en)  
A power conversion unit.

Title (de)  
Energieumwandlungseinheit.

Title (fr)  
Convertisseur d'énergie.

Publication  
**EP 0046046 A1 19820217 (EN)**

Application  
**EP 81303546 A 19810803**

Priority  
ZA 804699 A 19800801

Abstract (en)  
The invention relates to a power conversion unit (10) which includes a set of primary pistons (16), reciprocally displaceable in a set of primary cylinders (14), defined in a body, (12) on the internal combustion engine principle. The primary pistons (16) are directly connected, or via a constraining means, to a set of auxiliary pistons (28), reciprocally displaceable in a set of auxiliary cylinders (30), also defined in a body (32). The auxiliary pistons (28) can act upon a hydraulic fluid and the chemical and thermal energy of a combustible fuel, by combustion in the primary cylinders (14) is thus substantially directly converted to hydraulic energy available from the auxiliary cylinders (30). The constraining means may be a non-rotatably wobble plate (18), which can limit displacement of the pistons, and which can be mounted on a rotatable shaft (20) from which mechanical energy can be obtained to assist with the operation of the conversion unit (10).

IPC 1-7  
**F01B 3/00**; **F02B 63/06**; **F01B 3/02**

IPC 8 full level  
**F16H 23/08** (2006.01); **F01B 3/00** (2006.01); **F01B 3/02** (2006.01); **F02B 63/06** (2006.01); **F04B 9/00** (2006.01)

CPC (source: EP)  
**F01B 3/0005** (2013.01); **F01B 3/02** (2013.01); **F02B 63/06** (2013.01)

Citation (search report)  
• US 3263513 A 19660802 - HENRI GIRODIN MARIUS GEORGES  
• FR 1256064 A 19610317 - HISPANO SUIZA LALLEMANT SOC  
• FR 2131241 A5 19721110 - RENOULD CHRISTIAN  
• GB 355384 A 19310827 - BRAMSON MOGENS LOUIS  
• GB 852552 A 19601026 - UNITED ENGINES LTD  
• GB 223555 A 19251001 - CRANKLESS ENGINES LTD  
• FR 542789 A 19220821  
• FR 1228588 A 19600831 - ELECTRAULIC PRESSES LTD  
• DE 187256 C  
• FR 2390581 A1 19781208 - SECA [BE]

Cited by  
FR2711189A1; CN107524519A; CH703399A1; DE102010051299A1; DE102010027001A1; WO2011054333A1

Designated contracting state (EPC)  
DE FR GB IT SE

DOCDB simple family (publication)  
**EP 0046046 A1 19820217**; JP S5762901 A 19820416

DOCDB simple family (application)  
**EP 81303546 A 19810803**; JP 11943881 A 19810731