

Title (en)  
Turbine pump.

Title (de)  
Turbinenpumpe.

Title (fr)  
Turbine-pompe.

Publication  
**EP 0097924 A2 19840111 (DE)**

Application  
**EP 83106165 A 19830623**

Priority  
DE 3223868 A 19820625

Abstract (en)  
1. Pump with drive motor and integrated energy recovery turbine, consisting of a pump part, which transfers the rotational energy of the drive motor to a delivery flow and with a turbine part which receives hydraulic energy from the delivery flow and delivers it as rotational energy to the pump part, characterized in that the turbine part has a "backwardly" running side channel pump with impeller (27) with blade cells (32, 33) separated by blade segments (35, 36) and opposite flow channel (17, 17').

Abstract (de)  
Turbinenpumpe, bestehend aus einem Rotationsenergie abgebenden und hydraulische Energie aufnehmenden Turbinenteil und einem hierzu invers arbeitenden Pumpenteil, mit mindestens einem Laufrad (27'), wobei der Turbinenteil eine "rückwärts" laufende Seitenkanalpumpe mit Laufrad (27), Schaufelzellen (32, 33) und Schaufelstegen (35, 36) aufweist, denen gegenüberliegend ein Strömungskanal (17, 20) angeordnet ist.

IPC 1-7  
**F01D 1/02**; **F01D 5/02**; **F04D 5/00**

IPC 8 full level  
**F01D 1/02** (2006.01); **F01D 5/02** (2006.01); **F04D 5/00** (2006.01)

CPC (source: EP)  
**F01D 1/02** (2013.01); **F01D 5/02** (2013.01); **F04D 5/003** (2013.01); **F04D 5/005** (2013.01)

Cited by  
DE102010064450B3; DE102010001034A1; CN103403357A; DE102015209561A1; AU760732B2; DE102010064441B3; EP2426313A1; US6425734B2; US9677561B2; WO0171193A1; WO0181767A1; WO2011089025A3; WO2012113700A1; WO2012143495A2; KR101875797B1

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