

Title (en)  
ANNULAR GEAR PUMP

Publication  
**EP 0043899 B1 19840125 (DE)**

Application  
**EP 81103438 A 19810506**

Priority  
DE 3026222 A 19800710

Abstract (en)  
[origin: US4398874A] A gear ring pump has a housing with an inner hollow and a suction and pressure side, a hollow gear arranged in the housing and provided with between eight and sixteen teeth, and a driven pinion provided with teeth having by one tooth less than the hollow gear and engaging with the hollow gear so as to form a region of deepest engagement and a region which is opposite to the latter. The teeth heads of the pinion slide over the teeth of the hollow gear in the opposite region whereas the driving teeth flanks of the pinion abut against the teeth of the hollow gear in the region of deepest engagement so as to provide sealing between the suction side and pressure side. The teeth are formed so that the teeth heads of the pinion are freely received into the teeth gaps of the hollow gear and the teeth of the pinion has a shape determined by rolling of the pinion over the hollow gear. The teeth of the hollow gear have an approximately trapezoidal shape with convexly curved flanks and heads.

IPC 1-7  
**F04C 2/10**

IPC 8 full level  
**F01C 1/10** (2006.01); **F03C 2/08** (2006.01); **F04C 2/08** (2006.01); **F04C 2/10** (2006.01)

CPC (source: EP US)  
**F04C 2/084** (2013.01 - EP US)

Cited by  
US5092826A; US5056994A; DE102013111763B4; DE102013111763B8; DE102013111763A1; EP0367046A1; EP0079156B1

Designated contracting state (EPC)  
CH FR GB IT LI SE

DOCDB simple family (publication)  
**EP 0043899 A1 19820120; EP 0043899 B1 19840125**; AU 546238 B2 19850822; AU 7266381 A 19820218; BR 8104391 A 19820330; CA 1168510 A 19840605; DE 3026222 A1 19820204; DE 3026222 C2 19871001; JP S5779290 A 19820518; JP S6257835 B2 19871202; MX 154462 A 19870828; US 4398874 A 19830816; US 4432712 A 19840221

DOCDB simple family (application)  
**EP 81103438 A 19810506**; AU 7266381 A 19810708; BR 8104391 A 19810709; CA 379524 A 19810611; DE 3026222 A 19800710; JP 10632181 A 19810709; MX 18818181 A 19810707; US 27904281 A 19810630; US 33235581 A 19811218