

Title (en)  
INTERNAL GEAR PUMP

Title (de)  
INNENZAHRADPUMPE

Title (fr)  
POMPE A ENGRENAGES INTERIEURS

Publication  
**EP 1710436 A1 20061011 (EN)**

Application  
**EP 04807610 A 20041222**

Priority  
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Abstract (en)  
There is disclosed an internal gear pump in which the sliding resistance of the internal gear pump can be reduced, and the occurrence of noise and a decrease in the pump efficiency can be suppressed to the minimum even in this construction. The internal gear pump includes an inner rotor having external teeth 21, and an outer rotor having internal teeth 11, and draws and discharges fluid to convey the fluid while the inner rotor and the outer rotor rotate in engagement with each other. The internal diameter of a hole 31 formed in a casing 30 for accommodating the inner rotor 10 and the outer rotor 20 is set to be 0.1 mm to 0.6 mm larger than that the external diameter of the outer rotor 20. When "er" is an eccentric distance between the inner rotor 10 and the outer rotor 30 and "eh" is an eccentric distance between the inner rotor 10 and the hole 31 formed in the casing 30, the following inequality is satisfied:  $0.005 \text{ mm} \leq (eh - er) \leq 0.030 \text{ mm}$ .

IPC 8 full level  
**F04C 2/10** (2006.01)

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