

Title (en)  
Reciprocating pump

Title (de)  
Kolbenpumpe

Title (fr)  
Pompe alternative

Publication  
**EP 2025937 A1 20090218 (EN)**

Application  
**EP 07425514 A 20070807**

Priority  
EP 07425514 A 20070807

Abstract (en)  
A reciprocating pump (1) comprising a pumping chamber (30) and an intermediate chamber (40), a reciprocating member (50), high pressure seal means (21) between the pumping chamber (30) and the intermediate chamber (40), low pressure seal means (22) between the intermediate chamber (40) and the crankshaft housing (10), a pumping circuit (60) and an auxiliary circuit (70) in fluid separation from the pumping circuit (60). The pump further comprises a recirculating unit (80) whose inlet is connected to the delivery chamber (72) of the auxiliary circuit (70) and whose outlet is connected to the suction chamber (71) of the auxiliary circuit (70). The recirculating unit (80) comprises a recirculating pump (81) which is designed to suck fluid from the delivery chamber (72) and pump such fluid in the suction chamber (71) for fluid recirculating in the auxiliary circuit (70).

IPC 8 full level  
**F04B 53/08** (2006.01)

CPC (source: EP)  
**F04B 5/00** (2013.01); **F04B 53/08** (2013.01); **F04B 53/164** (2013.01); **F04B 53/18** (2013.01)

Citation (applicant)  
• EP 0976993 A2 20000202 - EMBRACO EUROP SRL [IT]  
• US 3379033 A 19680423 - GRANT WHITNEY I

Citation (search report)  
• [YD] US 2006140778 A1 20060629 - WARREN LESLIE J [GB]  
• [Y] EP 0976993 A2 20000202 - EMBRACO EUROP SRL [IT]  
• [Y] US 3379033 A 19680423 - GRANT WHITNEY I

Cited by  
CN113638876A; EP3578811A1; IT201800006145A1; EP3267035A1; US2018010601A1; US10612536B2; US10280910B2; US10246955B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK RS

DOCDB simple family (publication)  
**EP 2025937 A1 20090218; EP 2025937 B1 20100623**; AT E472058 T1 20100715; DE 602007007325 D1 20100805

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**EP 07425514 A 20070807**; AT 07425514 T 20070807; DE 602007007325 T 20070807