

Title (en)  
Improvements in automatic pool cleaners

Title (de)  
Automatischer Beckenreiniger

Title (fr)  
Nettoyeur automatique de bassin

Publication  
**EP 0721033 B1 19990512 (EN)**

Application  
**EP 96105686 A 19921119**

Priority  

- AU 8802591 A 19911120
- EP 92119752 A 19921119

Abstract (en)  
[origin: EP0543387A2] Apparatus for cleaning a surface submerged in a liquid is disclosed and claimed. The apparatus comprises a body (12) defining a flow passage (28, 32, 16, 18 and 20) therethrough. The flow passage extends between a main inlet (26) to the body defined in a peripheral region (22) of the body and an outlet (41) from the body. The peripheral region (22), in use, being releasably engageable with a surface to be cleaned and the outlet (41) being connectable to a suction source. A pivotal valve (34) is located in the body for intermittently varying the flow of liquid through the body (12). The cleaner is characterised in that it comprises formations (46) for imparting whirling motion to liquid flowing through at least part of the body (12).

IPC 1-7  
**E04H 4/16**

IPC 8 full level  
**E04H 4/16** (2006.01)

CPC (source: EP)  
**E04H 4/1663** (2013.01)

Cited by  
EP1188883A1; EP1188882A1; FR2830559A1; US6049933A; US2010139017A1; US8453284B2; AU2002234433B1; AU2002234433B8; FR2812015A1; AU2001270697B2; US6423217B1; US6226826B1; US6436720B1; US7168120B2; WO0046470A1; WO03029579A1; WO02075082A1; WO0208547A1; WO02070837A1; WO9907965A1

Designated contracting state (EPC)  
DE ES FR GB PT

DOCDB simple family (publication)  
**EP 0543387 A2 19930526; EP 0543387 A3 19930901; EP 0543387 B1 19970604;** AU 8802591 A 19930617; DE 69220187 D1 19970710; DE 69220187 T2 19971002; DE 69229187 D1 19990617; DE 69229187 T2 19991028; EP 0721033 A2 19960710; EP 0721033 A3 19961016; EP 0721033 B1 19990512; ES 2103869 T3 19971001; ES 2131889 T3 19990801; ZA 928984 B 19940520

DOCDB simple family (application)  
**EP 92119752 A 19921119;** AU 8802591 A 19911120; DE 69220187 T 19921119; DE 69229187 T 19921119; EP 96105686 A 19921119; ES 92119752 T 19921119; ES 96105686 T 19921119; ZA 928984 A 19921120