

Title (en)
PUMP UNIT FOR LIQUID-PUMPS

Publication
EP 0347542 A3 19900829 (DE)

Application
EP 89106849 A 19890417

Priority
DE 3821352 A 19880624

Abstract (en)
[origin: EP0347542A2] In a pump unit for liquid pumps, comprising a plastic impeller with a metallic hub and a mechanical seal, the counter-ring 4 is arranged in a recess 7 of the plastic impeller 2 in such a way that it is in thermally conducting contact by its rear face with the radial limb 10 of the hub 3. Heat dissipation to the shaft 8, which prevents melting of the plastic impeller 2, is thereby guaranteed. <IMAGE>

IPC 1-7
F04D 29/58; **F04D 29/12**

IPC 8 full level
F04D 29/22 (2006.01); **F04D 29/58** (2006.01)

CPC (source: EP US)
F04D 29/2227 (2013.01 - EP US); **F04D 29/5893** (2013.01 - EP US); **F05D 2230/23** (2013.01 - EP US); **F05D 2300/43** (2013.01 - EP US)

Citation (search report)
• [A] US 3354529 A 19671128 - JAMES DAVID W
• [XP] DE 3706770 A1 19880915 - LICENTIA GMBH [DE]

Cited by
DE19859390A1

Designated contracting state (EPC)
DE ES FR GB IT SE

DOCDB simple family (publication)
EP 0347542 A2 19891227; **EP 0347542 A3 19900829**; DE 3821352 C1 19891102; US 4973224 A 19901127

DOCDB simple family (application)
EP 89106849 A 19890417; DE 3821352 A 19880624; US 37084389 A 19890623