

Title (en)
PROCESS AND INSTALLATION FOR CIRCULATING FLUIDS BY PUMPING

Publication
EP 0236166 B1 19901003 (FR)

Application
EP 87400158 A 19870123

Priority
FR 8601763 A 19860210

Abstract (en)
[origin: US4712984A] Process for pumping fluid composed of a liquid phase and of a gaseous phase, which involves conveying liquid under pressure to the inlet of the turbine of a turbo-machine comprising a pump and a turbine, mixing some of the liquid coming from the turbine with the fluid, and sucking the mixture through the inlet of the pump so as to reduce the gas content of the fluid and allow it to be conveyed by the pump.

IPC 1-7
F04D 13/00; **F04D 31/00**

IPC 8 full level
F04B 19/06 (2006.01); **E21B 43/12** (2006.01); **F04D 13/04** (2006.01); **F04D 31/00** (2006.01)

CPC (source: EP US)
F04D 13/04 (2013.01 - EP US); **F04D 31/00** (2013.01 - EP US)

Cited by
US4979880A; US5755554A; EP0671563A1; US5562405A

Designated contracting state (EPC)
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DOCDB simple family (publication)
FR 2594183 A1 19870814; DE 3765271 D1 19901108; EP 0236166 A1 19870909; EP 0236166 B1 19901003; ES 2018026 B3 19910316; JP S62191671 A 19870822; NO 168965 B 19920113; NO 168965 C 19920422; NO 870493 D0 19870209; NO 870493 L 19870811; US 4712984 A 19871215

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FR 8601763 A 19860210; DE 3765271 T 19870123; EP 87400158 A 19870123; ES 87400158 T 19870123; JP 2742687 A 19870210; NO 870493 A 19870209; US 1068687 A 19870204