

Title (en)

PROCESS AND INSTALLATION TO CAUSE CIRCULATION OF FLUIDS BY PUMPING

Publication

**EP 0246943 B1 19900718 (FR)**

Application

**EP 87401004 A 19870430**

Priority

FR 8607204 A 19860521

Abstract (en)

[origin: US4721436A] This pumping installation comprises a source (1) of liquid and a turbo-machine comprising a pump (7) having an intake (8) and an outlet (9) and a turbine (5) which is fixed on the same shaft as the pump (7) and which has an intake (6) and an outlet (4). The outlet (4) of the turbine (5) opens into a conduit communicating the source (1) with the pump (7).

IPC 1-7

**E21B 43/12**; **E21B 43/40**; **F04D 13/04**

IPC 8 full level

**E21B 43/00** (2006.01); **E21B 43/12** (2006.01); **E21B 43/40** (2006.01); **F04D 13/04** (2006.01)

CPC (source: EP US)

**E21B 43/129** (2013.01 - EP US); **E21B 43/40** (2013.01 - EP US); **F04D 13/04** (2013.01 - EP US)

Cited by

US5582505A; EP0532397A1; FR2680983A1; DE4243132C1; US5655895A; WO9415065A1; WO9410449A1

Designated contracting state (EPC)

AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

**EP 0246943 A1 19871125**; **EP 0246943 B1 19900718**; AT E54718 T1 19900815; CA 1274418 A 19900925; DE 3763746 D1 19900823; ES 2016372 B3 19901101; FR 2599091 A1 19871127; FR 2599091 B1 19901026; GR 3000651 T3 19910927; JP S62279296 A 19871204; US 4721436 A 19880126

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