

Title (en)

Combination of a piston pump with a booster pump

Title (de)

Pumpenanordnung mit einer Kolbenpumpe und einer Boosterpumpe

Title (fr)

Pompe à piston combinée avec une pompe de surpression

Publication

**EP 0893601 B1 20040512 (DE)**

Application

**EP 98111868 A 19980626**

Priority

DE 19732062 A 19970725

Abstract (en)

[origin: EP0893601A2] The piston pump is operable in both rotary directions of the drive shaft (24) and the booster pump is accordingly suitably formed. The booster pump housing contains a changeover section (15) in which a pump wheel (11) is arranged on a shaft (12) and is closed with a cover (8) fitted removably on the housing. An axially delivering booster pump enables the removed cover (8) to release the pump wheel which is then exchangeable against a pump wheel for the opposite direction of rotation. With a radially delivering booster pump the pump wheel (11) has radially running blades (13). The changeover section (15) is so formed that a ring space is formed between the outer periphery of the pump wheel (11) and the inside of the changeover section. The ring space radial width is constant along the total periphery of the pump wheel.

IPC 1-7

**F04B 23/10**; F04D 29/62; F04D 29/48; F04B 23/14

IPC 8 full level

**F04B 23/10** (2006.01); **F04B 23/14** (2006.01); **F04D 13/12** (2006.01); **F04D 29/48** (2006.01); **F04D 29/62** (2006.01)

CPC (source: EP US)

**F04B 23/10** (2013.01 - EP US); **F04B 23/14** (2013.01 - EP US); **F04D 13/12** (2013.01 - EP US); **F04D 29/486** (2013.01 - EP); **F04D 29/628** (2013.01 - EP)

Cited by

DE10352029A1; WO2013053794A1

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

**EP 0893601 A2 19990127**; **EP 0893601 A3 20000301**; **EP 0893601 B1 20040512**; DE 19732062 A1 19990128; DE 59811361 D1 20040617

DOCDB simple family (application)

**EP 98111868 A 19980626**; DE 19732062 A 19970725; DE 59811361 T 19980626