

Title (en)

PUMP DEVICE FOR LOW-VISCOSITY LIQUIDS

Publication

EP 0320061 B1 19911016 (DE)

Application

EP 88202779 A 19881205

Priority

DE 3741978 A 19871211

Abstract (en)

[origin: EP0320061A2] The invention relates to a pump device for low viscosity liquids, particularly lightly polluted water, with an electric drive motor which is arranged above the level of the liquid in a collecting tank (1), whose pump wheel (23) is arranged at a distance from the motor (14) on the bottom (9) of the collecting tank (1) in a pump chamber (11) and which is driven via a shaft (21) bridging that distance, which without a seal extends into the pump sump (41). The pump device has the following characteristics: a) the drive motor (14) is a small electric motor, in particular a two-pole single phase synchronous motor with permanently magnetic rotor (25), b) an intermediate shaft (21) is provided which is composed of a wear-resistant and low-friction plastic, c) the intermediate shaft (21) is divisible but positively connected to the motor shaft (24), d) an intermediate bushing (18) of wear-resistant and low-friction plastic is slipped on to the intermediate shaft, this bushing centering the intermediate shaft on the motor bearing plate (39) and supporting it on an intermediate bearing point (20) between positive connection (38) and pump wheel (23), e) the pump wheel (23) is removable and is only slipped on at the time of assembly. <IMAGE>

IPC 1-7

D06F 39/08; F04D 13/06; F04D 29/04; F04D 29/20; F04D 29/62

IPC 8 full level

D06F 39/08 (2006.01); **F04D 9/00** (2006.01); **F04D 13/06** (2006.01); **F04D 29/02** (2006.01); **F04D 29/04** (2006.01); **F04D 29/041** (2006.01);
F04D 29/047 (2006.01); **F04D 29/20** (2006.01); **F04D 29/62** (2006.01)

CPC (source: EP US)

D06F 58/24 (2013.01 - EP US); **F04D 9/003** (2013.01 - EP); **F04D 13/06** (2013.01 - EP); **F04D 29/026** (2013.01 - EP);
F04D 29/0413 (2013.01 - EP); **F04D 29/047** (2013.01 - EP US); **F04D 29/20** (2013.01 - EP); **F04D 29/628** (2013.01 - EP);
F05D 2300/43 (2013.01 - EP)

Cited by

CN103454183A; CN104265647A; CN104265689A; US7071590B2; CN104121223A

Designated contracting state (EPC)

CH DE ES FR IT LI

DOCDB simple family (publication)

EP 0320061 A2 19890614; EP 0320061 A3 19900124; EP 0320061 B1 19911016; DE 3741978 A1 19890622; DE 3865645 D1 19911121;
ES 2027757 T3 19920616

DOCDB simple family (application)

EP 88202779 A 19881205; DE 3741978 A 19871211; DE 3865645 T 19881205; ES 88202779 T 19881205