

Title (en)

Pump unit and fluid supplying system

Title (de)

Pumpeinheit und System zur Flüssigkeitsversorgung

Title (fr)

Groupe de pompage et système de distribution de liquide

Publication

EP 1293663 A3 20041201 (EN)

Application

EP 02016012 A 20020718

Priority

JP 2001217902 A 20010718

Abstract (en)

[origin: US2003017057A1] A fuel supplying system includes a tank and a pump unit, which transfers fluid from the tank. The pump unit includes a first pump, a second pump, and a drive source. The first pump and the second pump are driven by the common drive source. The first pump, the second pump, and the drive source are structured as one unit. This reduces the size and simplifies the structure of the fuel supplying system.

IPC 1-7

F04B 23/04; F04B 23/10

IPC 8 full level

B60K 15/03 (2006.01); **F04B 1/12** (2006.01); **F04B 1/22** (2006.01); **F04B 17/03** (2006.01); **F04B 23/02** (2006.01); **F04B 23/10** (2006.01);
F04B 23/12 (2006.01); **F04B 23/14** (2006.01)

CPC (source: EP US)

F04B 1/128 (2013.01 - EP US); **F04B 17/03** (2013.01 - EP US); **F04B 23/026** (2013.01 - EP US); **F04B 23/106** (2013.01 - EP US);
F04B 23/14 (2013.01 - EP US)

Citation (search report)

- [X] CA 1162105 A 19840214 - KUTOWY OLEH
- [X] US 5482441 A 19960109 - PERMAR CLARK [US]
- [A] GB 1420422 A 19760107 - TOKYO KEIKI KK
- [A] GB 2294977 A 19960515 - FUNNELL NICHOLAS JOHN [GB]
- [A] DE 19912286 A1 20000727 - PROJEKTBUERO GREBE GMBH [DE]
- [A] DE 19539885 A1 19961128 - BOSCH GMBH ROBERT [DE]
- [A] EP 1074734 A2 20010207 - PIERBURG AG [DE]

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

US 2003017057 A1 20030123; EP 1293663 A2 20030319; EP 1293663 A3 20041201; JP 2003028055 A 20030129

DOCDB simple family (application)

US 19991502 A 20020718; EP 02016012 A 20020718; JP 2001217902 A 20010718