

Title (en)

Fluid Pump Assembly

Title (de)

Flüssigkeitspumpenanordnung

Title (fr)

Ensemble de pompe à fluide

Publication

EP 2189658 A1 20100526 (EN)

Application

EP 08169804 A 20081124

Priority

EP 08169804 A 20081124

Abstract (en)

A fluid pump assembly comprising a driven cam (18) and a reciprocating member (26, 28; 126, 226, 326; 32, 34) reciprocal within a bore provided in a pump housing (12, 30) as the cam (18) is driven, in use, to cause pressurisation of fluid within a pump chamber (33, 35). The pump assembly further comprises interface means (26a, 18c) between the cam (18) and the reciprocating member, preferably in the form of bevelled surfaces (18c, 26a, 28a; 32a, 34a) of the cam and the reciprocating member, which serve to drive the reciprocating member (26, 28) (i) to translate in a first, axial direction within the bore and (ii) to rotate within the bore in a second, rotational direction. A preferred feature of the fluid pump assembly is that the pump housing (12, 30) defines a bearing (22) for the cam (18) which is provided with a region of weakness (50) to allow the bearing (22) to deflect, in use, thereby to provide an increased lubrication volume between the cam and the bearing (22). The reciprocating member may take the form of a tappet (26, 28) which cooperates with a pumping plunger to pressurise fluid within the pump chamber (33, 35).

IPC 8 full level

F04B 1/04 (2006.01); **F02M 59/10** (2006.01); **F04B 1/12** (2006.01); **F04B 1/32** (2006.01); **F04B 9/04** (2006.01)

CPC (source: EP US)

F02M 59/102 (2013.01 - EP US); **F04B 1/0426** (2013.01 - EP US); **F04B 1/12** (2013.01 - EP US); **F04B 1/326** (2013.01 - EP US);
F04B 9/042 (2013.01 - EP US)

Citation (applicant)

WO 2004104409 A1 20041202 - DELPHI TECH INC [US], et al

Citation (search report)

- [X] US 3208396 A 19650928 - TADEUSZ BUDZICH, et al
- [XA] US 4753581 A 19880628 - HISCOCK BENJAMIN [US]
- [XA] GB 2308623 A 19970702 - UNISIA JECS CORP [JP]
- [XA] EP 1091170 A2 20010411 - EATON WILLIAMS GROUP LTD [GB]
- [A] US 2910008 A 19591027 - WEISENBACH CHARLES O

Cited by

CN109185093A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

EP 2189658 A1 20100526; EP 2189658 B1 20171122; JP 2010133402 A 20100617; JP 5108858 B2 20121226; US 2010129246 A1 20100527

DOCDB simple family (application)

EP 08169804 A 20081124; JP 2009257148 A 20091110; US 61546709 A 20091110