

Title (en)  
ROLLER BEARING, PISTON PUMP AND PUMP UNIT

Title (de)  
WÄLZLAGER, KOLBENPUMPE UND PUMPENAGGREGAT

Title (fr)  
PALIER A ROULEMENT, POMPE A PISTON ET ENSEMBLE POMPE

Publication  
**EP 1283959 A2 20030219 (DE)**

Application  
**EP 01955184 A 20010511**

Priority  
• DE 0101795 W 20010511  
• DE 10023947 A 20000516

Abstract (en)  
[origin: WO0188392A2] The invention relates to a roller bearing, especially a needle bearing (38). The aim of the invention is to provide the ring (42) of a needle bearing (38) with a side extension (46) enabling the needle bearing (38) to be pressed into the seat of a roller bearing (48). One advantage of the invention is that the ring of the bearing (42) can be pressed through the seat of the roller bearing (48) outside the needle region (40) of the needle bearing (38), whereby the pressure on the seat of the roller bearing (48) does not affect the clearance of the needle bearing (38). Said needle bearing (38) is expressly provided in order to mount a shaft (24) bearing an eccentric (26), said shaft pertaining to a piston pump (16) which is part of a pump unit (10).

IPC 1-7  
**F16C 1/00**

IPC 8 full level  
**F04B 53/00** (2006.01); **B60T 8/40** (2006.01); **F04B 1/04** (2006.01); **F04B 9/02** (2006.01); **F04B 17/03** (2006.01); **F16C 19/46** (2006.01); **F16C 27/06** (2006.01); **F16C 33/58** (2006.01); **F16C 35/067** (2006.01)

CPC (source: EP US)  
**B60T 8/4031** (2013.01 - EP US); **F04B 1/0413** (2013.01 - EP US); **F04B 1/0417** (2013.01 - EP US); **F04B 17/03** (2013.01 - EP US); **F16C 19/466** (2013.01 - EP US); **F16C 27/066** (2013.01 - EP US); **F16C 35/077** (2013.01 - EP US)

Citation (search report)  
See references of WO 0188392A2

Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**WO 0188392 A2 20011122**; **WO 0188392 A3 20020530**; CZ 20023709 A3 20030416; DE 10023947 A1 20011122; EP 1283959 A2 20030219; JP 2003533650 A 20031111; US 2004045431 A1 20040311

DOCDB simple family (application)  
**DE 0101795 W 20010511**; CZ 20023709 A 20010511; DE 10023947 A 20000516; EP 01955184 A 20010511; JP 2001584752 A 20010511; US 27668803 A 20030829