

Title (en)
ROLLER PUMP

Title (de)
ROLLENPUMPE

Title (fr)
POMPE A ROULEAU

Publication
EP 1616097 A2 20060118 (EN)

Application
EP 04721721 A 20040318

Priority
• JP 2004003703 W 20040318
• JP 2003074514 A 20030318

Abstract (en)
[origin: WO2004083640A2] To prevent damage to a tube in a roller pump which pumps a fluid contained in the tube by squeezing it against an inner wall surface of a housing with a roller, so that the tube can be used continuously for a long time. A depression which a part of the tube enters when squeezed with the roller is formed on at least one of a roller surface of the roller and the inner wall surface of the housing. This alleviates a load on the tube, thereby preventing damage to the tube. Alternatively, the roller may include a plurality of disc rollers that are separately rotatable. This reduces differences in frictional force acting upon the tube when squeezed by the roller, thereby preventing damage to the tube. According to these constructions, the tube can be used continuously for a long time.

IPC 1-7
F04B 43/12

IPC 8 full level
F04B 43/12 (2006.01)

CPC (source: EP US)
F04B 43/1253 (2013.01 - EP US)

Citation (search report)
See references of WO 2004083640A2

Designated contracting state (EPC)
DE FR GB IT NL SE

DOCDB simple family (publication)
WO 2004083640 A2 20040930; WO 2004083640 A3 20050106; WO 2004083640 A8 20051222; EP 1616097 A2 20060118; JP 2008069633 A 20080327; US 2006251532 A1 20061109

DOCDB simple family (application)
JP 2004003703 W 20040318; EP 04721721 A 20040318; JP 2003074514 A 20030318; US 54836705 A 20050907