

Title (en)
TUBULAR BRANCHING SYSTEM FOR DUAL-CYLINDER THICK-LIQUID PUMP

Title (de)
ROHRWEICHE FÜR ZWEIZYLINDER-DICKSTOFFPUMPE

Title (fr)
SYSTEME DE BIFURCATION TUBULAIRE POUR POMPE A LIQUIDES EPAIS A DEUX CYLINDRES

Publication
EP 1053401 B1 20030409 (DE)

Application
EP 99908801 A 19990119

Priority
• DE 19804072 A 19980204
• DE 19860185 A 19981224
• EP 9900301 W 19990119

Abstract (en)
[origin: US6338615B1] The present invention relates to a pipe switch for a dual-cylinder thick-liquid pump, wherein said system comprises a pivoting pivot pipe (36) located in the front of a glasses-like wear plate (34) on the cylinder side as well as a wear ring (38) which is capable of limited axial displacement at the end of the pivot pipe (36) on the cylinder side. The ring can be pressed against the wear plate (34) by the hydrostatic pressure existing inside said pivot pipe. The wear ring 38 has a centering portion (46) guided on an axis-parallel centering surface (42) of the pivot pipe (36) as well as a sealing part (54) resting against the wear plate (34) through an abutment surface (52) on the cylinder side. The pivot pipe (36) and the sealing part (54) of the wear ring (38) have annular surfaces (56, 58) which face each other and which are axially spaced from one another by an annular gap (59) opened towards the inside of the pipe. An annular system (60) exhibiting at least a rubber elasticity is further provided, wherein said system axially covers the annular gap (59) and has its abutment surfaces (62, 64) resting in a prestressed manner against each of the annular surfaces (56, 58). In order to allow for an automatic anti-wear readjustment of the wear ring, the annular system (60) has an axial annular support (80) provided on its abutment surface (62) which faces the centering portion (46) of the wear ring (38), wherein said support (80) is made of a wear-resistant material which is more rigid than the rubber-elastic material.

IPC 1-7
F04B 15/02

IPC 8 full level
F04B 15/02 (2006.01); **F04B 7/00** (2006.01)

CPC (source: EP US)
F04B 7/0096 (2013.01 - EP US)

Cited by
US7407022B2

Designated contracting state (EPC)
DE ES FR GB IT NL PT

DOCDB simple family (publication)
US 6338615 B1 20020115; EP 1053401 A1 20001122; EP 1053401 B1 20030409; ES 2194445 T3 20031116; JP 2002502939 A 20020129; PT 1053401 E 20030829; WO 9940320 A1 19990812

DOCDB simple family (application)
US 60152700 A 20000802; EP 9900301 W 19990119; EP 99908801 A 19990119; ES 99908801 T 19990119; JP 2000530707 A 19990119; PT 99908801 T 19990119