Title (en)
METHOD FOR CONTROLLING A PUMP ARRANGEMENT CONSISTING OF TWO HYDRAULICALLY DRIVEN PLUNGER PISTON PUMPS

Title (de)
VERFAHREN ZUR STEUERUNG EINER AUS ZWEI HYDRAULISCH ANGETRIEBENEN PLUNGERKOLBENPUMPEN GEBILDETEN PUMPENANORDNUNG

Title (fr)
PROCEDE DE COMMANDE D'UN SYSTEME DE POMPES COMPOSE DE DEUX POMPES A PISTONS PLONGEURS A COMMANDE HYDRAULIQUE

Publication
EP 1332288 B1 20070110 (DE)

Application
EP 01993768 A 20011027

Priority
• DE 10055986 A 20001111
• EP 0112465 W 20011027

Abstract (en)
[origin: WO0238958A1] The invention relates to a pump arrangement consisting of two hydraulically driven plunger piston pumps (11, 12). The movement of the plunger pistons (13, 23) is controlled by control mechanisms which supply a pressure means to double-acting hydraulic cylinders whose pistons (29, 36) are connected to the plunger pistons (13, 23), depending on the signals of an electric control device (43). In order to prevent pressure surges in the liquid to be conveyed by the pump arrangement during the transfer from being conveyed by one plunger piston (13, 23) to the other plunger piston (13, 23) as far as possible, the delivery stroke of one plunger piston begins in the final phase of the delivery stroke of the other plunger piston (13, 23), respectively. To this end, the signal that is supplied to the control mechanism (33, 38) for the cylinder that ends the delivery stroke is constantly reduced to zero in the final phase of the delivery stroke from a value corresponding the quantity to be conveyed and the signal that is supplied to the control mechanism (33, 38) for the cylinder that begins the delivery stroke is increased from zero to the value corresponding to the quantity to be conveyed during this time.

IPC 8 full level
F04B 9/117 (2006.01); **F04B 11/00** (2006.01)

CPC (source: EP)
F04B 9/1172 (2013.01); **F04B 11/0058** (2013.01)

Cited by
US9458843B2

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
WO 0238958 A1 20020516; DE 10055986 A1 20020606; DE 50111870 D1 20070222; EP 1332288 A1 20030806; EP 1332288 B1 20070110

DOCDB simple family (application)
EP 0112465 W 20011027; DE 10055986 A 20001111; DE 50111870 T 20011027; EP 01993768 A 20011027