

Title (en)

PNEUMATICALLY POWERED HYDRAULIC PUMP

Publication

EP 0071655 B1 19851218 (DE)

Application

EP 81106100 A 19810804

Priority

EP 81106100 A 19810804

Abstract (en)

[origin: EP0071655A1] 1. Pneumatically actuated hydraulic pump (1) including a double acting actuator piston (9) adapted to be alternately pressurized via a switch valve (14) for actuating hydraulic pump elements (19), a valve spool (30) mounted in said switch valve (14) for displacement between two operative positions by the action of a selector control pressure derived from the pressure acting on said actuator piston (9) so as to connect in each of its operative positions a connecting passage (25 or 26) to a pressurized air supply passage, and another connecting passage (26 or 25) to a return passage (28 or 29), said return passages (28, 29) being disposed approximately in the same radial planes as said connecting passages (25, 26), as referred to the longitudinal axis of said valve spool, characterized in that a coaxial reduced-diameter auxiliary piston (41) is associated with each end face of said valve spool (30), each said auxiliary piston being sealedly slidably in the switch valve housing (15) and adapted to have its end facing away from said valve spool (30) acted upon by said selector control pressure, in that one of two annular chambers (39) is disposed between sealed guide means (38) for each auxiliary piston (41) and the respective end face (32) of said valve spool (30), the pressurized air being permitted to leak into said annular chambers, and in that a restricted venting channel (46) is formed between the end face (32) of said valve spool (30) closing the connection between the pressurized air supply passage (24) and the associated return passage (28, 29) and said return passage (28, 29).

IPC 1-7

F01L 25/06; F04B 9/12

IPC 8 full level

F01L 25/06 (2006.01); **F04B 9/129** (2006.01)

CPC (source: EP)

F01L 25/066 (2013.01); **F04B 9/129** (2013.01)

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0071655 A1 19830216; EP 0071655 B1 19851218; AT E17029 T1 19860115; DE 3173248 D1 19860130

DOCDB simple family (application)

EP 81106100 A 19810804; AT 81106100 T 19810804; DE 3173248 T 19810804