

Title (en)

Hydraulic system for supply of open or closed hydraulic functions

Title (de)

Hydrauliksystem zur Versorgung offener oder geschlossener Hydraulikfunktionen

Title (fr)

Système hydraulique pour alimentation de fonctions hydrauliques ouvertes ou fermées

Publication

EP 0620371 B1 19970903 (DE)

Application

EP 94104713 A 19940324

Priority

DE 4311191 A 19930405

Abstract (en)

[origin: EP0620371A1] A hydraulic system is described which has a variable-displacement hydraulic pump (10), the outlet pressure of which can be controlled as a function of a pressure applied to a load-indicating connection (18), a supply tank (22), a hydraulic function (12, 13, 14) with a feed line (34), and a valve arrangement (16) located between hydraulic pump (10), supply tank (22) and hydraulic function (12, 13, 14). In order to produce a load signal absent at the hydraulic function (12, 13, 14), by means of which load signal the hydraulic pump (10) can be regulated, it is proposed that a valve (24) be arranged between the feed line (34) and the load-indicating connection (18). A control spool (26) of the valve (24) is pushed by a spring (40) and a pressure acting on its first side into a closed position and by a pressure acting on its second side into an open position in which a control connection between the feed line (34) and the load-indicating connection (18) is open. Reversing valve means (42, 44) are provided, by means of which different pressures can alternatively be applied to the first and the second side of the control spool (26). When using a hydraulic function (12, 14) with a constant-flow hydraulic circuit, the first side of the control spool (26) is connected to the supply tank (22) and the second side of the control spool (26) is connected to the feed line (34) by the reversing valve means (42, 44), and, when using a hydraulic function (13, 14) with a constant-pressure hydraulic system, the first side of the control spool (26) is connected to the feed line (34) and the second side of the control spool (26) is connected to the pump outlet by the reversing valve means (42, 44). <IMAGE>

IPC 1-7

F15B 11/05; A01B 63/10

IPC 8 full level

A01B 63/10 (2006.01); **E02F 9/22** (2006.01); **F15B 11/05** (2006.01)

CPC (source: EP US)

E02F 9/2225 (2013.01 - EP US); **E02F 9/2232** (2013.01 - EP US); **E02F 9/2285** (2013.01 - EP US); **E02F 9/2296** (2013.01 - EP US);
F15B 11/055 (2013.01 - EP US); **F15B 2211/20553** (2013.01 - EP US); **F15B 2211/253** (2013.01 - EP US); **F15B 2211/30505** (2013.01 - EP US);
F15B 2211/30565 (2013.01 - EP US); **F15B 2211/31529** (2013.01 - EP US); **F15B 2211/31558** (2013.01 - EP US);
F15B 2211/31576 (2013.01 - EP US); **F15B 2211/327** (2013.01 - EP US); **F15B 2211/329** (2013.01 - EP US);
F15B 2211/40515 (2013.01 - EP US); **F15B 2211/40584** (2013.01 - EP US); **F15B 2211/41509** (2013.01 - EP US);
F15B 2211/455 (2013.01 - EP US); **F15B 2211/46** (2013.01 - EP US); **F15B 2211/6355** (2013.01 - EP US)

Cited by

CN102713088A; DE102010006858A1

Designated contracting state (EPC)

AT BE CH DE DK FR GB IT LI NL

DOCDB simple family (publication)

US 5419129 A 19950530; AT E157747 T1 19970915; CA 2120052 A1 19941006; CA 2120052 C 19991102; DE 4311191 A1 19941013;
DE 4311191 C2 19950202; DE 59403919 D1 19971009; DK 0620371 T3 19980420; EP 0620371 A1 19941019; EP 0620371 B1 19970903

DOCDB simple family (application)

US 21584294 A 19940322; AT 94104713 T 19940324; CA 2120052 A 19940328; DE 4311191 A 19930405; DE 59403919 T 19940324;
DK 94104713 T 19940324; EP 94104713 A 19940324