Title (en)

BISTABLE HYDRAULIC VALVE FOR OPERATING A PISTON OF A FAST HIGH TENSION CIRCUIT BREAKER

Publication

EP 0022729 B1 19830216 (FR)

Application

EP 80401062 A 19800715

Priority

FR 7918757 A 19790716

Abstract (en)

[origin: EP0022729A1] 1. Hydraulically-actuated operating system of a jack associated with a switching operation mechanism of a high tension circuit breaker for closing and opening of the contacts, said device including : - an accumulator (56) filled with oil under pressure, - a lower pressure sump (72) for the leakage of the jack (15) oil when the tripping occurs, - an hydraulic poppet valve (10) to selectively connect the jack (15), either to the accumulator (56) for closure and hold of the contacts in switch-off position, or to the sump (72) for venting when the tripping occurs, - supply (58) and back-flow (70) ducts for the connection of the poppet valve to the accumulator (56) and to the sump (72) respectively, - a fixed body (12) equipped with a first seat (40) located in close proximity to a leakage port (68) of a back-flow duct (70), and with a second seat (48) located in close proximity to an inlet port (54) of the supply duct (58), the two seats (40, 48) being shifted from each other by a predetermined axial gap, - and a propelling unit (14, 200), capable of moving the poppet valve between the two seats (40, 48) of said gap to ensure closure or tripping of the circuit breaker, said poppet valve (10) comprising a closing member (28) capable of sliding in a reaming (32) of the body (12), characterized in that the closing member (28) of the poppet valve (10) is stable in the two farthest positions of limit closure and tripping, and is formed by an hollow cylinder (30) comprising : - a first supporting face (38) at one of the cylinder (30) ends being brought into stable engagement in limit closure against the first seat (40) disposed between the back-flow duct (70) and the jack, (15) duct (62a), - a second supporting face (42) at the opposite end of the cylinder (30) cooperating in stable position of limit tripping with the second seat (48) located between the supply duct (58) and the propelling unit (14, 200), the last one being mechanically coupled to the cylinder (30) on the side of said second supporting face (42), - and an inner duct (62b) opening at the two ends of the cylinder (30) by opposite apertures, each showing a size lower than the corresponding seat (40, 48) one.

IPC 1-7

H01H 33/34; H01H 33/28

IPC 8 full level

H01H 33/28 (2006.01); **H01H 33/34** (2006.01)

CPC (source: EP)

H01H 33/285 (2013.01); **H01H 33/34** (2013.01); H01H 2033/308 (2013.01)

Cited by

CN112503044A

Designated contracting state (EPC)

BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

EP 0022729 A1 19810121; **EP 0022729 B1 19830216**; DE 3062026 D1 19830324; FR 2462015 A1 19810206; FR 2462015 B1 19820122; JP S5615516 A 19810214

DOCDB simple family (application)

EP 80401062 A 19800715; DE 3062026 T 19800715; FR 7918757 A 19790716; JP 9742180 A 19800715