

Title (en)  
PUMP PROTECTION FITTING

Title (de)  
PUMPENSCHUTZARMATUR

Title (fr)  
ROBINETTERIE DE PROTECTION DE POMPE

Publication  
**EP 0916048 A1 19990519 (DE)**

Application  
**EP 98933593 A 19980604**

Priority  
• DE 19724511 A 19970611  
• EP 9803354 W 19980604

Abstract (en)  
[origin: DE19724511C1] The invention relates to a pump protection fitting, comprising a housing (1) with a pump connection piece (2) arranged in the main direction of flow (R), a feed water connection piece (3) opposite thereto, a bypass connection piece (4) arranged perpendicular to the main direction of flow (R) and a closure (5) for an assembly plate located opposite the bypass connection piece (4). A non-return valve plate (7) is movably arranged between the closure (5) and the bypass connection piece (4) with a valve spindle (6) and which is optionally spring-loaded in relation to a valve seat (8) located opposite the assembly plate closure (5). The non-return valve plate (7) actuates an at least one-step throttle valve (9) which is coaxial thereto and which is completely opened when the non-return valve plate (7) is closed and produces a bypass (10) from the pump connection to the bypass connection piece (4). The valve spindle (6) has one or several throttle bodies (11). The end (lower side) of said valve spindle is allocated a security stop (SA) which is arranged in the bypass connection piece to limit waste. The self-controlled valve spindle (6) is moved in the same direction by a gear-like lifting mechanism (H) and is coaxially arranged in the housing (1) of the three-way straightway valve.

IPC 1-7  
**F16K 17/04**; **F04D 15/00**

IPC 8 full level  
**F16K 15/02** (2006.01); **F04B 53/10** (2006.01); **F04D 15/00** (2006.01); **F16K 17/04** (2006.01); **F16K 51/00** (2006.01)

CPC (source: EP)  
**F04D 15/0011** (2013.01); **F16K 17/0473** (2013.01)

Citation (search report)  
See references of WO 9857076A1

Designated contracting state (EPC)  
CH DE ES GB IT LI

DOCDB simple family (publication)  
**DE 19724511 C1 19981210**; CA 2263438 A1 19981217; EP 0916048 A1 19990519; JP 2000517405 A 20001226; WO 9857076 A1 19981217

DOCDB simple family (application)  
**DE 19724511 A 19970611**; CA 2263438 A 19980604; EP 9803354 W 19980604; EP 98933593 A 19980604; JP 50152599 A 19980604