

Title (en)
VALVE COMPRISING RADIAL RECESSES

Title (de)
VENTIL MIT RADIALEN AUSNEHMUNGEN

Title (fr)
SOUPAPE DOTEE DE CAVITES RADIALES

Publication
EP 1387950 B1 20100113 (DE)

Application
EP 02732350 A 20020323

Priority
• DE 0201081 W 20020323
• DE 10122503 A 20010510

Abstract (en)
[origin: WO02090761A1] The invention relates to a valve comprising a valve needle (2), which can be axially displaced inside a borehole (5) of a valve body (3) and whose one end is provided with a conical valve needle tip (4). The valve needle tip (4) has a radial valve sealing surface (9), which rests against a conical valve body inner wall (6) at the closed end of the borehole (5) when the valve is in the closed position. At least one opening (7) is located in the conical valve body inner wall (6) and serves to connect the borehole (5) to the outer side (8) of the valve body (3). The valve contains two radial recesses (12, 13, 16, 17), which are located in the valve needle tip (4) or in the valve body inner wall (6). One of the radial recesses (13, 17) is located up (10) and the other radial recess (12, 16) is located down (11) from the position of the valve sealing surface (9) when the valve is in the closed position.

IPC 8 full level
F02M 61/18 (2006.01); **F02M 47/02** (2006.01); **F02M 45/04** (2006.01); **F02M 61/16** (2006.01)

CPC (source: EP US)
F02M 61/1873 (2013.01 - EP US); **F02M 45/04** (2013.01 - EP US); **F02M 47/027** (2013.01 - EP US); **F02M 61/168** (2013.01 - EP US)

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
WO 02090761 A1 20021114; CN 1462342 A 20031217; DE 10122503 A1 20021121; DE 50214168 D1 20100304; EP 1387950 A1 20040211; EP 1387950 B1 20100113; JP 2004519604 A 20040702; JP 4157384 B2 20081001; PL 358462 A1 20040809; US 2004056118 A1 20040325; US 7000856 B2 20060221

DOCDB simple family (application)
DE 0201081 W 20020323; CN 02801583 A 20020323; DE 10122503 A 20010510; DE 50214168 T 20020323; EP 02732350 A 20020323; JP 2002587798 A 20020323; PL 35846202 A 20020323; US 33237903 A 20030929