

Title (en)

Apparatus for opening and closing a flapper valve

Title (de)

Vorrichtung zum Öffnen und Schliessen eines Klappenventiles

Title (fr)

Appareil pour ouvrir et fermer une vanne à clapet pivotant

Publication

**EP 0985798 A2 20000315 (EN)**

Application

**EP 99307058 A 19990906**

Priority

US 15058198 A 19980910

Abstract (en)

A typical flapper valve (10) includes a substantially tubular housing (26), a valve seat (18) defining a flow passage (18c) therethrough, and a flapper valve closure member (32) pivotally connected to the housing (26) adjacent the valve seat (18) for selectively moving between an open position and a closed position against the valve seat (18). The flapper valve includes a lever arm (36) on the closure member (32). The lever arm (36) extends from adjacent to the flapper valve pivotal connection away from the closure member (32). A piston (60) is mounted adjacent to a tubular wall of the housing (26), and a pivotal connection is provided for operatively connecting the piston (40) to the lever arm (36). Thus, moving the piston (60) in a first direction urges the closure member (32) to pivot about the pivotal connection toward the closed position. Moving the piston (60) in a second direction that is opposed to the first direction urges the closure member (32) to pivot about the pivotal connection toward the open position. A control line and fluid communication passages (68a,68b,68c) in the housing (26) are provided for selectively transmitting fluid pressure from a remote location to the piston (60) for moving the piston (60) in at least one direction, thereby urging the closure member (32) to pivot in at least one direction about the pivotal connection between the open position and the closed position <IMAGE>

IPC 1-7

**E21B 34/10**; **E21B 34/06**

IPC 8 full level

**E21B 34/10** (2006.01); **E21B 34/00** (2006.01)

CPC (source: EP)

**E21B 34/10** (2013.01); **E21B 2200/05** (2020.05)

Cited by

EP2107210A3; NO333665B1; WO2012102620A2; US8689893B2; US10513904B2; WO2019005248A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 0985798 A2 20000315**; **EP 0985798 A3 20021009**

DOCDB simple family (application)

**EP 99307058 A 19990906**