

Title (en)  
Double pinion cylinder type operating apparatus

Title (de)  
Doppel-Ritzel Zylindervorrichtung

Title (fr)  
Dispositif de commande du type cylindre pignon double

Publication  
**EP 0719896 B1 20030326 (EN)**

Application  
**EP 95120396 A 19951222**

Priority  
JP 32496494 A 19941227

Abstract (en)  
[origin: EP0719896A2] There is provided an operating apparatus in which even if a lift of ascent and descent of a gate is long, the cylinder stroke can be suppressed to a level lower than the lift, and the buckling strength of the cylinder rod need not be increased. A double pinion cylinder type operating apparatus wherein a cylinder is arranged on a gatepost slab above stanchions on both sides of a gate to be raised and lowered, a pinion mounting intermediate mount is installed below the cylinder rod of the cylinder, pinions are rotatably provided on both sides of the pinion mounting intermediate mount, stationary racks meshed with either the insides or outsides of the pinions are vertically provided, and lower ends of movable rack bars meshed with the other side of the pinions are secured to the gate. The gate is driven by the movable rack bars meshed with the pinions raised and lowered with the same stroke as that of the cylinder rod raised and lowered by the cylinder. A cylinder stroke of less than half that of the lift of the gate will suffice, accordingly. <IMAGE>

IPC 1-7  
**E02B 7/20**; **F15B 15/08**

IPC 8 full level  
**E02B 7/36** (2006.01); **E02B 8/04** (2006.01); **F15B 15/08** (2006.01)

CPC (source: EP KR)  
**E02B 7/20** (2013.01 - KR); **E02B 7/36** (2013.01 - EP); **E02B 8/04** (2013.01 - EP); **F15B 15/065** (2013.01 - EP)

Cited by  
FR3073235A1; EP1627957A1

Designated contracting state (EPC)  
DE FR NL

DOCDB simple family (publication)  
**EP 0719896 A2 19960703**; **EP 0719896 A3 19980211**; **EP 0719896 B1 20030326**; CN 1133406 A 19961016; CN 1163675 C 20040825; CN 1236145 C 20060111; CN 1495320 A 20040512; DE 69530057 D1 20030430; DE 69530057 T2 20030925; KR 100379853 B1 20030718; KR 960023527 A 19960720

DOCDB simple family (application)  
**EP 95120396 A 19951222**; CN 03155046 A 19951227; CN 95120109 A 19951227; DE 69530057 T 19951222; KR 19950059480 A 19951227