

Title (en)  
DEVICE FOR CONVEYING FREE-FLOWING OR BULK MATERIALS

Title (de)  
VORRICHTUNG ZUM FÖRDERN VON FLIESS- ODER SCHÜTTFÄHIGEM FÖRDERGUT

Title (fr)  
DISPOSITIF PERMETTANT DE TRANSPORTER DES MATIERES A TRANSPORTER APTES A L'ECOULEMENT

Publication  
**EP 1402180 A1 20040331 (DE)**

Application  
**EP 02743224 A 20020619**

Priority  
• DE 10131904 A 20010704  
• EP 0206759 W 20020619

Abstract (en)  
[origin: WO03004873A1] The invention relates to a device for conveying free-flowing or bulk materials. The inventive device comprises at least one conveyor piston (24) that can reciprocate preferably by hydraulic means (26), a support tube (30) axially guiding the conveyor piston on its peripheral surface (42), a charge compartment (20) that is axially contingent in the direction of conveyance to the guide tube and that can be charged with material to be conveyed via a feed funnel (12), and a conveyor cylinder (32) that is axially disposed in the path of reciprocation and that is connected on the input side to the charge compartment and on the output side to a discharge pipe (14). The conveyor piston, in its end position retracted into the support tube (30), releases the charge compartment towards the feed funnel while it passes through the charge compartment when advanced, thereby entraining material to be conveyed, and penetrates the conveyor cylinder (32). The invention is specifically characterized in that the support tube, on its charge compartment end, has a replaceable sealing cassette (76) whose stripping and/or sealing elements (88, 90) resting on the peripheral surface of the conveyor piston are automatically adjusted to the state of wear of the conveyor piston.

IPC 1-7  
**F04B 15/02**; F04B 53/16; F04B 53/22; E21D 9/12; F04B 53/00

IPC 8 full level  
**E21D 9/12** (2006.01); **E21F 13/08** (2006.01); **F04B 15/02** (2006.01); **F04B 53/00** (2006.01); **F04B 53/16** (2006.01); **F04B 53/22** (2006.01)

CPC (source: EP)  
**E21D 9/124** (2013.01); **F04B 15/023** (2013.01); **F04B 53/008** (2013.01); **F04B 53/164** (2013.01); **F04B 53/22** (2013.01)

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**WO 03004873 A1 20030116**; AT E338210 T1 20060915; DE 10131904 A1 20030116; DE 50208013 D1 20061012; EP 1402180 A1 20040331; EP 1402180 B1 20060830; ES 2269727 T3 20070401; JP 2004533569 A 20041104; JP 4072501 B2 20080409

DOCDB simple family (application)  
**EP 0206759 W 20020619**; AT 02743224 T 20020619; DE 10131904 A 20010704; DE 50208013 T 20020619; EP 02743224 A 20020619; ES 02743224 T 20020619; JP 2003510613 A 20020619