

Title (en)  
DEVICE FOR CLEANING A SMOOTH-WALLED TUBE

Title (de)  
REINIGUNGSVORRICHTUNG FÜR EIN GLATTWÄNDIGES ROHR

Title (fr)  
DISPOSITIF DE NETTOYAGE D'UN TUBE A PAROI LISSE

Publication  
**EP 1594634 B1 20100721 (FR)**

Application  
**EP 04709257 A 20040209**

Priority  
• FR 2004000288 W 20040209  
• FR 0301526 A 20030210

Abstract (en)  
[origin: US2006130251A1] The invention relates to a device for cleaning a cylindrical or conical tube ( 2 ) having a smooth wall and placed in a horizontal or an inclined position, said device comprising: a cylindrical body ( 4 ) that has an axis X, that is suitable for being inserted axially into said tube, and that, around its periphery, has brush means ( 6, 7 ) for brushing the inside wall ( 1 ) of said tube ( 2 ); a rod ( 30 ) fastened to an end face of said body ( 4 ); and means for causing said rod ( 30 ) and said body ( 4 ) to turn about the axis X; said device being characterized by the fact that the cylindrical body ( 4 ) has a chamber ( 12 ) that is suitable for receiving a cleaning liquid and, on one of its generator lines, it has: a first orifice ( 14 ) opening out into a first end of a radial duct ( 17 ) which is disposed in said chamber ( 12 ) and whose second end ( 19 ) is disposed in the vicinity of that wall ( 20 ) of said chamber ( 12 ) which is situated facing said first orifice ( 14 ); and at least one second orifice ( 13, 15 ) open to the outside and serving to discharge a quantity of cleaning liquid by gravity when it is situated under the level ( 21 ) of the liquid in the chamber ( 12 ) while said device is turning; the first orifice ( 14 ) serving to fill said chamber ( 12 ) with cleaning liquid, and to allow air to be taken into said chamber ( 12 ) when the second end ( 19 ) of the duct ( 17 ) is disposed above the level ( 21 ) of the liquid.

IPC 8 full level  
**B08B 9/04** (2006.01); **A46B 11/00** (2006.01); **B08B 9/02** (2006.01); **B08B 9/045** (2006.01); **F41A 29/02** (2006.01)

CPC (source: EP US)  
**B08B 9/021** (2013.01 - EP US); **B08B 9/0436** (2013.01 - EP US); **B08B 9/045** (2013.01 - EP US); **F41A 29/02** (2013.01 - EP US)

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)  
**US 2006130251 A1 20060622**; **US 7694377 B2 20100413**; AT E474675 T1 20100815; DE 602004028216 D1 20100902;  
EP 1594634 A1 20051116; EP 1594634 B1 20100721; ES 2349127 T3 20101228; FR 2850887 A1 20040813; FR 2850887 B1 20050429;  
WO 2004071682 A1 20040826

DOCDB simple family (application)  
**US 54370705 A 20050728**; AT 04709257 T 20040209; DE 602004028216 T 20040209; EP 04709257 A 20040209; ES 04709257 T 20040209;  
FR 0301526 A 20030210; FR 2004000288 W 20040209