Title (en)

Apparatus for injecting a treating liquid into wood material

Title (de)

Vorrichtung zur Einspritzung von Behandlungsflüssigkeit in Holz

Title (fr)

Appareil pour l'injection d'un liquide traitant dans le bois

Publication

EP 1053841 A1 20001122 (EN)

Application

EP 00109861 A 19931231

Priority

- EP 93121160 A 19931231
- JP 2375293 A 19930119

Abstract (en)

An apparatus for injecting a treating liquid into wood material comprises: a pressure vessel (12) for storing and sealing said material (11) to be treated therein; a pressure reducing pump (13) for reducing the pressure of said pressure vessel (12) after storing and sealing said material (11) in said pressure vessel (12); a liquid pressure applying device (15) for introducing the treating liquid from a tank (16) for said treating liquid into said pressure vessel (12) to fill up the vessel (12) with the liquid and apply pressure to inject the liquid into said material (11); a pressure removing tank (18) connected to said pressure vessel (12), whose pressure is previously equalized by gas from a gas pressure applying compressor (14) with the pressure of the pressure vessel (12); and a pressure removing valve (19) which opens to gradually reduce the pressure of said pressure vessel (12) through said pressure removing tank (18); wherein the material (11) is stored and sealed in the pressure vessel (12); the pressure of the pressure vessel (12) is reduced by the pressure reducing pump (13), the treating liquid is introduced from the tank (16) to the pressure vessel (12) to fill up the vessel (12) with the liquid and apply pressure to inject the liquid into the material in the pressure vessel (12); the gas is applied from the gas applying compressor (14) to the pressure removing tank (18) to previously equalize the pressure of the tank (18) with that of the pressure vessel (12); and the pressure removing valve (19) is opened to gradually reduce the pressure of the pressure vessel (12) through the pressure removing tank (18) to obtain a liquid injected material product. <IMAGE>

IPC 1-7 (main, further and additional classification)

B27K 3/10; B27K 3/08

IPC 8 full level (invention and additional information)

B27K 3/02 (2006.01); **B05C 3/02** (2006.01); **B05D 3/12** (2006.01); **B05D 7/00** (2006.01); **B05D 7/06** (2006.01); **B27K 3/08** (2006.01); **B27K 3/10** (2006.01); **B27K 5/00** (2006.01); **C04B 41/45** (2006.01)

CPC (invention and additional information)

B27K 3/10 (2013.01); **B27K 3/0207** (2013.01); **B27K 3/08** (2013.01); **B27K 5/0075** (2013.01)

Citation (search report)

- [A] US 1602577 A 19261012 - HECKERT HERBERT D
- [A] US 1465742 A 19230821 - SHIPLEY GRANT B, et al
- [A] US 1484574 A 19240219 - SHIPLEY GRANT B
- [A] US 1456323 A 19230522 - MCPHERSON FLOYD H, et al

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB IT LI LU NL SE

DOCDB simple family

EP 0607625 A1 19940727; EP 0607625 B1 20010131; AT 199001 T 20010215; AU 5235993 A 19940728; AU 670142 B2 19960704; BR 9400128 A 19940809; CA 2113661 A1 19940720; CA 2113661 C 19990720; CN 1035545 C 19970806; CN 1102801 A 19950524; DE 69329902 D1 20010308; DE 69329902 T2 20010719; DK 0607625 T3 20010618; EP 1053841 A1 20001122; FI 940249 A0 19940118; FI 940249 A 19940720; JP 2557780 B2 19961127; JP H06210606 A 19940802; NZ 250695 A 19960227; RU 2128112 C1 19990327