

Title (en)
NEEDLE-PUNCHING MACHINE EQUIPPED WITH A PENETRATION MEASURING DEVICE

Title (de)
NADELMASCHINE MIT EINER VORRICHTUNG ZUM MESSEN DER EINSTICHTIEFE

Title (fr)
MACHINE D'AIGUILLETAGE MUNIE D'UN DISPOSITIF DE MESURE DE PENETRATION

Publication
EP 1373623 A1 20040102 (FR)

Application
EP 02706913 A 20020301

Priority
• FR 0200745 W 20020301
• FR 0102869 A 20010302

Abstract (en)
[origin: WO02070807A1] The invention concerns a needle-punching machine for a textile structure consisting of a plurality of superposed layers (12) comprising a vertically mobile needle-punching table (10), a needle-punching head including s specific number of barbed needles (18) and arranged in line with said needle-punching table, and means for driving the needle-punching head to impart thereto a reciprocating vertical movement defining a maximum needle penetration low point, wherein are provided measuring means (36), arranged at said needle-punching head to measure the position of an upper surface of the textile structure at the maximum needle penetration low point. Said measuring means are preferably arranged in a median plane of the needle-punching head perpendicular to a forward moving direction of the textile structure.

IPC 1-7
D04H 18/00

IPC 8 full level
D04H 18/02 (2012.01); **D04H 1/498** (2012.01); **D04H 18/00** (2012.01)

CPC (source: EP KR)
D04H 1/498 (2013.01 - KR); **D04H 18/00** (2013.01 - EP); **D04H 18/02** (2013.01 - EP KR)

Citation (search report)
See references of WO 02070807A1

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 02070807 A1 20020912; WO 02070807 A8 20040506; AT E297482 T1 20050615; BR 0207550 A 20040914; CA 2439701 A1 20020912; CA 2439701 C 20080826; CN 1320191 C 20070606; CN 1494617 A 20040505; DE 60204554 D1 20050714; DE 60204554 T2 20060316; EP 1373623 A1 20040102; EP 1373623 B1 20050608; ES 2242846 T3 20051116; FR 2821632 A1 20020906; FR 2821632 B1 20030808; HU P0303368 A2 20040128; HU P0303368 A3 20080828; IL 157423 A0 20040328; JP 2004526878 A 20040902; JP 4290990 B2 20090708; KR 100835773 B1 20080609; KR 20040025664 A 20040324; MX PA03007824 A 20041112; RU 2003127060 A 20050227; RU 2279499 C2 20060710; UA 74423 C2 20051215

DOCDB simple family (application)
FR 0200745 W 20020301; AT 02706913 T 20020301; BR 0207550 A 20020301; CA 2439701 A 20020301; CN 02805609 A 20020301; DE 60204554 T 20020301; EP 02706913 A 20020301; ES 02706913 T 20020301; FR 0102869 A 20010302; HU P0303368 A 20020301; IL 15742302 A 20020301; JP 2002569506 A 20020301; KR 20037011077 A 20030822; MX PA03007824 A 20020301; RU 2003127060 A 20020301; UA 200398176 A 20020301