

Title (en)  
APPARATUS FOR NEEDLING A NONWOVEN WEB

Title (de)  
VORRICHTUNG ZUM VERNADELN EINER VLIESBAHN

Title (fr)  
DISPOSITIF POUR AIGUILLETER UNE BANDE D'ÉTOFFE NON TISSÉE

Publication  
**EP 2021539 B1 20120613 (DE)**

Application  
**EP 07725103 A 20070511**

Priority  
• EP 2007004183 W 20070511  
• DE 102006023762 A 20060520

Abstract (en)  
[origin: WO2007134731A1] An apparatus is described for needling a nonwoven web by way of at least one needle bar. The needle bar which has a needle board on its underside having a multiplicity of needles is held by a bar carrier which is driven into an oscillating movement in an up and down motion by means of a vertical drive and an oscillating movement in a to and fro motion by means of a horizontal drive. As vertical drive, at least two driven eccentric shafts and a plurality of connecting rods which are assigned to the eccentric shafts and are coupled to the bar carrier by way of their free ends are provided. The horizontal drive has at least one horizontal strut which is connected to the bar carrier by way of one end and, by way of an opposite end, is coupled to a gear mechanism kinematics system which has an eccentric drive. In order to obtain as simple and compact a construction of the horizontal drive as possible, the gear mechanism kinematics system according to the invention is formed by a swinging arm which is held by way of one end on a machine frame by a frame rotary joint, has a double rotary joint at the opposite end and is coupled to the horizontal strut and the eccentric drive at the double rotary joint.

IPC 8 full level  
**D04H 18/00** (2012.01)

CPC (source: EP US)  
**D04H 18/02** (2013.01 - EP US)

Designated contracting state (EPC)  
DE FR IT

DOCDB simple family (publication)  
**WO 2007134731 A1 20071129**; EP 2021539 A1 20090211; EP 2021539 B1 20120613; TW 200806839 A 20080201;  
US 2009119894 A1 20090514; US 7614127 B2 20091110

DOCDB simple family (application)  
**EP 2007004183 W 20070511**; EP 07725103 A 20070511; TW 96116243 A 20070508; US 27386308 A 20081119