

Title (en)
SEWING NEEDLE MOUNTING STRUCTURE AND SEWING NEEDLE

Title (de)
NÄHNADELHALTER SOWIE NÄHNADEL

Title (fr)
STRUCTURE POUR MONTER UNE AIGUILLE A COUDRE ET AIGUILLE A COUDRE

Publication
EP 1645673 A1 20060412 (EN)

Application
EP 04746463 A 20040625

Priority
• JP 2004008994 W 20040625
• JP 2003189535 A 20030701

Abstract (en)
Chance of breaking a sewing needle is minimized as much as possible to eliminate a cleaning operation of fragments from a broken needle and thus greatly improve a production efficiency. A sewing needle mounting structure comprises a needle stopper 6 with a mounting opening 8 allowing a sewing needle 3 to be freely inserted therein from beneath. A sewing needle 3 is inserted into the mounting opening 8 to lock with a needle stopper 6 to form a sewing needle locking mechanism B. The sewing needle locking mechanism B further comprises a spring 12 installed on the needle stopper 6 and a contact component 10 to push the sewing needle from the side with its elastic force. When upward force higher than a desired value is exerted onto the sewing needle 3, the contact component 10 acts to release the sewing needle 3 from its locked state, while the mounting opening 8 is elongated upward to a position longer than a length required for insertion of the sewing needle in a normal position

IPC 1-7
D05B 55/02

IPC 8 full level
D05B 55/02 (2006.01); **D05B 85/02** (2006.01)

CPC (source: EP KR)
D05B 55/02 (2013.01 - EP KR); **D05B 85/02** (2013.01 - KR)

Citation (search report)
See references of WO 2005003425A1

Designated contracting state (EPC)
CZ DE

DOCDB simple family (publication)
EP 1645673 A1 20060412; CN 1813090 A 20060802; JP 2005021337 A 20050127; JP 4079224 B2 20080423; KR 20060025579 A 20060321; TW 200506128 A 20050216; WO 2005003425 A1 20050113

DOCDB simple family (application)
EP 04746463 A 20040625; CN 200480018345 A 20040625; JP 2003189535 A 20030701; JP 2004008994 W 20040625; KR 20057025216 A 20051229; TW 93119353 A 20040629