

Title (en)

Needle for performing operations with yarns, slivers and flexible strands, and device for the use of such a needle

Title (de)

Nadel zur Durchführung von Vorgängen mit Faden, Strähnen und biegeweichen Schnüren sowie Vorrichtung zur Verwendung einer solchen Nadel

Title (fr)

Aiguille destinée à l'exécution d'opérations avec des fils, mèches ou cordons souples et dispositif pour l'utilisation d'une telle aiguille

Publication

EP 0387129 B1 19970910 (FR)

Application

EP 90400553 A 19900228

Priority

FR 8902905 A 19890306

Abstract (en)

[origin: EP0387129A1] The invention relates to a needle intended particularly for the production of reinforcements by multi-directional weaving. <??>According to the invention, the needle is of the type comprising an elongate body (10) and an eye formed in the vicinity of its free end (14) and is characterised in that the eye is a closed loop (18) extending outside the body of the needle. <IMAGE>

IPC 1-7

D03D 47/20; D03D 41/00

IPC 8 full level

D03D 41/00 (2006.01); **D03D 47/04** (2006.01); **D03D 47/20** (2006.01)

CPC (source: EP US)

D03D 41/004 (2013.01 - EP US); **D03D 47/20** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0387129 A1 19900912; EP 0387129 B1 19970910; CA 2011512 A1 19900906; CA 2011512 C 19991109; DE 69031396 D1 19971016; DE 69031396 T2 19980115; FR 2643916 A1 19900907; FR 2643916 B1 19911011; JP 2644605 B2 19970825; JP H02269834 A 19901105; US 5127443 A 19920707

DOCDB simple family (application)

EP 90400553 A 19900228; CA 2011512 A 19900305; DE 69031396 T 19900228; FR 8902905 A 19890306; JP 5192490 A 19900305; US 48869890 A 19900305