Title (en)
  Weft insertion method

Title (de)
  Verfahren zum Eintragen eines Schussfadens

Title (fr)
  Procédé d'insertion de trame

Publication
  EP 1777328 A1 20070425 (DE)

Application
  EP 05023632 A 20051028

Priority
  • EP 05021548 A 20051001
  • EP 05023632 A 20051028

Abstract (en)
  A projectile shuttle (15) is moved through the shed by the interaction between external driving magnets and permanent magnets within the shuttle. The shuttle has an upper part (15.2) that can be raised from the lower part (15.1) and magnets (31, 32) are arranged to provide a clamping force on the yarn in the gap between them. To insert the yarn, the gap is opened by fixed electro-magnets (28) that overcome the clamping force of the permanent magnets. The external permanent magnets are attached to a reciprocating cord or tape drive, which is mounted on the sley and moves with it. The weight of the shuttle (15) is at most 20 g, preferably 5 g. It can run over support ribs (30) that penetrate into the shed.

IPC 8 full level
  D03D 47/24 (2006.01); **D03D 47/27** (2006.01); **D03D 49/44** (2006.01)

CPC (source: EP)
  D03D 47/24 (2013.01); **D03D 47/272** (2013.01); **D03D 47/275** (2013.01); **D03D 47/276** (2013.01); **D03D 47/277** (2013.01); **D03D 47/38** (2013.01); **D03D 49/44** (2013.01); **D03J 5/06** (2013.01)

Citation (search report)
  • [XY] EP 0101946 A2 19840307 - WANGNER GMBH CO KG HERMANN [DE]
  • [X] EP 0391770 A2 19901010 - HUANG CHI SHUANG [TW]
  • [X] DE 908240 C 19540405 - BECHE & GROHS G M B H
  • [X] GB 189909907 A 18990729 - BECK RUDOLF [AT]
  • [X] DE 211916 C
  • [Y] FR 1009908 A 19520605
  • [A] EP 0908547 A1 19990414 - RUETI AG MASCHF [CH]
  • [A] FR 894279 A 19441219
  • [A] DE 3922472 A1 19910117 - OBERDORFER FA F [DE]
  • [A] US 3794085 A 19740226 - STEPHENS W

Cited by
  EP2829646A1; US9359700B2

Designated contracting state (EPC)
  AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
  AL BA HR MK YU

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  WO 2007039243 A1 20070412; EP 1777328 A1 20070425; EP 1937883 A1 20080702

DOCDB simple family (application)
  EP 2006009473 W 20060929; EP 05023632 A 20051028; EP 06805954 A 20060929