Title (en)

Latch needle with improved thread space

Title (de)

Zungennadel mit verbessertem Fadenraum

Title (fr)

Aiguille à clapet avec espace de fil amélioré

Publication

EP 1146157 B1 20040714 (DE)

Application

EP 01108697 A 20010406

Priority

- DE 10018798 A 20000415
- DE 10057765 A 20001122

Abstract (en)

[origin: EP1146157A2] The latch needle, especially for knitting delicate yarns, has a latch (7) with a step (22) at its inner contour (23) linked to its free end (12). When the latch of the latch needle is in the closed setting (I), the step is next to the hook (3) and especially the hook point. The step is formed by a projection (26), at the inner side of the latch towards the yarn holding zone (9), to cover the hook point for the yarns. The step defines a point (29) at the transit to the inner contour of the latch with a height level so that a theoretical connecting line (27) between it and a point (18) of the hook point where its curvature ends is parallel to the back of the needle, or is at an acute angle to it where the projection (26) extends into the yarn holding zone. The hook has a preferably rounded point, with a gap (32) between it and the step with a wider width than the diameter of the yarns to be knitted. The hook has a groove (11) for the free end (12) of the latch, when in the closed position. The groove has a depth which, at least at the hook point, is less than one-half the hook thickness at that point. The free end of the latch has a laying surface (25), where its theoretical extension is a line (24) extending over or under the step height level. The latch thickness and width taper towards it free end. The inner contour of the latch has rounded side edges.

IPC 1-7

D04B 35/04

IPC 8 full level

D04B 35/04 (2006.01)

CPC (source: EP US)

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Cited by

EP2196571A1; EP1449947A1

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

EP 1146157 A2 20011017; **EP 1146157 A3 20020130**; **EP 1146157 B1 20040714**; ES 2220615 T3 20041216; JP 2001355166 A 20011226; JP 3926578 B2 20070606; US 2002020195 A1 20020221; US 6422046 B1 20020723

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EP 01108697 A 20010406; ES 01108697 T 20010406; JP 2001115904 A 20010413; US 83490301 A 20010416