

Title (en)
Latch needle with a latch mounted on a pivot bearing

Title (de)
Zungennadel mit auf einem Zapfen gelagerter Zunge

Title (fr)
Aiguille à clapet avec un clapet monté sur un pivot à articulation

Publication
EP 1048770 A1 20001102 (DE)

Application
EP 00105150 A 20000310

Priority
DE 19914928 A 19990401

Abstract (en)
[origin: DE19914928A1] The latch needle (1) has a recess (24), where the base (26) forms a further recess (20) at the outer zone (28). The recess (24) has a generally cylindrical wall (25). The further recess (20) at the recess base (26) is at a ring-shaped outer zone (28). The recess (24) has a center section (27), and the additional recess (20) is deeper than the center (27). The second recess (20) is in a coherent structure with the main recessed zone (24). The center zone (27) of the recess (24) is flat or it is cambered. The recess has a step transit between the center section (27) and the additional recess (20), with a conical ring surface. The width of the additional recess (20) is greater than its depth, as a ring groove with a groove base, mantle surfaces and groove flanks. A cambered transit surface is between the groove base into the groove mantle surfaces and the flanks, with a curve radius which is less than half the groove width, or one-third or pref. one-quarter of the groove width. The needle recess (24) has a depth at the center section (27) equal to the height of the projections (11,12). The latch mounting (13) is formed by the two projections (11,12), each secured to a cheek (8,9) of the needle structure. The projections (11,12) give a cylindrical mantle surface (15), and a laying surface for the latch (5). The projections (11,12) have flat end surfaces (17,18) towards each other, pref. with contact, parallel to the cheeks (8,9) and forming an included angle with the cheeks which differs from zero. The second recess (20) is at a zone for the edges of the latch opening (14).

Abstract (de)
Eine Zungennadel weist zur Lagerung ihrer Zunge Halbzapfen (11, 12) auf, die an der Zungennadel angeformt sind. Die Zungennadel (1) ist dazu mit einem Zungenschlitz (7) versehen, der von zwei Wangen (8, 9) begrenzt wird. An den voneinander weg weisenden Seitenflächen der Wangen (8, 9) sind Vertiefungen ausgebildet. Die durch plastische Verformung gebildeten Vertiefungen erzeugen Vorsprünge bzw. Halbzapfen (11 und 12), welche in den Zungenschlitz (7) und in das Zungenloch einer sich in den Zungenschlitz (7) erstreckenden Zunge (5) ragen. Der Boden der Vertiefung (24) weist in seinem Randbereich in axialer Verlängerung eine weitere Vertiefung (20) auf. Diese Form der zweifach gestuften Vertiefung ermöglicht die Ausbildung eines relativ präzise zylindrischen Halbzapfens (11, 12), so dass der Traganteil der durch die beiden Halbzapfen (11, 12) festgelegten Lagerfläche (15) maximiert wird. <IMAGE>

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IPC 8 full level
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CPC (source: EP US)
D04B 35/04 (2013.01 - EP US)

Citation (search report)

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- [A] US 4020319 A 19770426 - SHEPARD RICHARD WILTON, et al
- [DA] US 5509280 A 19960423 - SCHULER BERNHARD [DE], et al
- [DA] DE 608619 C 19350128 - TORRINGTON CO

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