

Title (en)

Sewing machine needle with offset eye lips

Title (de)

Nähmaschinennadel mit versetzten Öhrstegen

Title (fr)

Aiguille de machine à coudre avec chas à lèvres décalées

Publication

EP 1052324 B1 20060607 (DE)

Application

EP 00106098 A 20000330

Priority

DE 19921914 A 19990512

Abstract (en)

[origin: EP1052324A2] The sewing machine needle (1) has an eye (11) which is defined by two spaced straps (12,14) offset against each other across needle center axis (4). The eye straps (12,14) are rounded, with a rounding radius pref. equal to one-half the thickness of the eye straps (12,14). offset gap between the eye straps (12,14) is at least 40% of the nominal needle thickness, and pref. 50%. The needle eye straps (12,14) each have a transit zone (15,18) between their rounded ends and a base surface (16,17) towards the sewing thread, on the center axis (4). The passage through the needle eye (11) is a straight line past the surfaces (16,17) on the thread side, at an acute angle of ≤ 20 degrees to the center axis (4). At least one eye strap surface (16,17), and pref. both, is concave toward the sewing thread. The length of the needle eye (11), along the center axis (4), is less than twice the nominal needle thickness and pref. 1.0-1.1 times. Each eye strap (12,14) is defined by a thread groove (21,32) at the surface on the thread side. The eye walls have inner surfaces, with an axial sections between them at different angles. The needle (1) height, measured at the eye (at right angles to the center axis (4), is less than the needle thickness. The eye strap (12), between the eye and the needle clamping section, has walls which do not project over the sides of the strap (12).

IPC 8 full level

D05B 85/00 (2006.01); **D05B 85/02** (2006.01)

CPC (source: EP US)

D05B 85/00 (2013.01 - EP US)

Cited by

WO2017060056A1; EP3153617A1; US10753024B2; TWI700409B

Designated contracting state (EPC)

CH DE ES FR GB IT LI

DOCDB simple family (publication)

EP 1052324 A2 20001115; EP 1052324 A3 20010516; EP 1052324 B1 20060607; DE 19921914 A1 20001207; DE 19921914 C2 20011025; DE 50012884 D1 20060720; ES 2261113 T3 20061116; JP 2000325684 A 20001128; US 6318280 B1 20011120

DOCDB simple family (application)

EP 00106098 A 20000330; DE 19921914 A 19990512; DE 50012884 T 20000330; ES 00106098 T 20000330; JP 2000136279 A 20000509; US 66055700 A 20000912