

Title (en)

COMPOUND NEEDLE FOR FLAT KNITTING MACHINE

Title (de)

SCHIEBERNADEL FÜR FLACHSTRICKMASCHINE

Title (fr)

AIGUILLE À COULISSE POUR UNE MACHINE À TRICOTER RECTILIGNE

Publication

**EP 3702505 B1 20230809 (EN)**

Application

**EP 20159208 A 20200225**

Priority

CN 201910149940 A 20190228

Abstract (en)

[origin: EP3702505A1] The present invention discloses a compound needle in a flat knitting machine. The compound needle comprises a main needle (1) and a needle sleeve (2) sleeving the main needle. The main needle (1) is elongated, and comprises a needle hook (11). The top end of the needle sleeve (2) comprises an apex angle (21). An open slot structure is formed in one side, facing the main needle, of the needle sleeve. The front and rear sides of the main needle (1) are recessed inwards to form a concave surface (16,17) respectively, and the needle sleeve (2) is clamped on the concave surface (16,17) through the open slot. A salient point (24) is formed on one of the side, facing to the main needle, of the needle sleeve (2), and a trajectory surface (15) is formed on the other side. The salient point cooperates with the trajectory surface, such that when the needle sleeve moves, the apex angle moves to close the needle hook of the main needle. Loops on the compound needle of the present invention have small knocking-over resistance, small clearing stroke and fast knitting speed. The compound needle can guide a knitting needle in the corresponding position to reach a needle turning position, thereby realizing reliable needle turning, accompanied with simple and agile actions. The compound needle slides in the needle groove stably and the fabric surface is flat.

IPC 8 full level

**D04B 35/06** (2006.01)

CPC (source: EP)

**D04B 35/06** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 3702505 A1 20200902; EP 3702505 B1 20230809; EP 3702505 C0 20230809;** CN 109750413 A 20190514; CN 109750413 B 20230929

DOCDB simple family (application)

**EP 20159208 A 20200225;** CN 201910149940 A 20190228