

Title (en)  
COMPOUND NEEDLE FOR FLAT KNITTING MACHINE

Title (de)  
SCHIEBERNADEL FÜR EINE FLACHSTRICKMASCHINE

Title (fr)  
AIGUILLE À COULISSE POUR UNE MACHINE À TRICOTER RECTILIGNE

Publication  
**EP 3702506 A1 20200902 (EN)**

Application  
**EP 20159260 A 20200225**

Priority  
CN 201910149954 A 20190228

Abstract (en)  
The present invention discloses a compound needle in a flat knitting machine comprising a main needle (1) and a needle sleeve (2) adapted to sleeve on the main needle. A needle hook (11) is disposed at the head of the main needle (1). The top end of the needle sleeve is provided with an apex angle (21). A first fastener (26) and a second fastener (27) are disposed on one side, facing the main needle, of the needle sleeve. A first concave surface (16) and a second concave surface (17) are formed on the front side and the rear side of the main needle in sections. The first fastener (26) and the second fastener (27) are respectively fastened on the first and the second concave surface (16,17). The side, facing the needle sleeve, of the main needle props against and cooperates with the side, facing the main needle, of the needle sleeve each other, such that when the needle sleeve moves, the apex angle (21) moves from accommodating grooves of the main needle to close the needle hook (11) 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 of 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)

Citation (applicant)  
CN 201810043037 A 20180117

Citation (search report)

- [Y] FR 1088820 A 19550310
- [Y] US 2002112509 A1 20020822 - BASEGGIO MARCELLO [CH], et al
- [Y] CN 108035063 A 20180515 - NINGBO CIXING CO LTD
- [Y] WO 2006062205 A1 20060615 - SHIMA SEIKI MFG [JP], et al
- [Y] EP 2397589 A2 20111221 - SHIMA SEIKI MFG [JP]
- [Y] JP 2007231448 A 20070913 - SHIMA SEIKI MFG
- [Y] EP 2397590 A2 20111221 - SHIMA SEIKI MFG [JP]
- [Y] CN 203333962 U 20131211 - NINGBO CIXING CO LTD
- [Y] EP 1368520 A2 20031210 - HOFMANN ULRICH [DE]

Cited by  
CN113355798A

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3702506 A1 20200902**; CN 109706615 A 20190503; CN 109706615 B 20230929

DOCDB simple family (application)  
**EP 20159260 A 20200225**; CN 201910149954 A 20190228