

Title (en)
NEEDLE CYLINDER AND CIRCULAR KNITTING MACHINE

Title (de)
NADELZYLINDER UND RUNDSTRICKMASCHINE

Title (fr)
CYLINDRE À AIGUILLES ET MÉTIER CIRCULAIRE

Publication
EP 3268526 A1 20180117 (DE)

Application
EP 16712075 A 20160307

Priority
• DE 102015103639 A 20150312
• IB 2016051286 W 20160307

Abstract (en)
[origin: WO2016142843A1] The present invention relates to a needle cylinder (1, 1') of a circular knitting machine (10, 10'), on the cylinder barrel (3) of which a plurality of needle channels (4) is provided extending in the axial cylinder direction with knitting needles (5) which are able to move therein, and in the upper cylinder end (6, 6') thereof provided for stitch forming, a radially orientated groove (7) is provided between each pair of neighbouring needle channels (4), in which at least one respective insert (8, 8') is provided, which forms a stitch forming surface with the insert surface (81) thereof protruding from the respective groove (7). The invention further relates to a circular knitting machine (10, 10') with a needle cylinder (1, 1') of this type. Thus, the object of the invention is to provide a needle cylinder (1, 1') of the above-mentioned type and a circular knitting machine (10, 10') comprising a needle cylinder (1, 1') of this type having exchangeable inserts (8, 8') forming stitch forming surfaces, the exchanging of which involves a reasonable expenditure of time. Said problem is solved by a needle cylinder (1, 1') of the above-mentioned type and a corresponding circular knitting machine (10, 10'), in which the insert (8, 8') is designed in the form of a spring bow, wherein the spring bow comprises a bracket foot spanning the upper cylinder end (6) on the side of the cylinder barrel (3) or a lateral edge (31) of an outer annular channel (30) provided in the upper cylinder end (6') and a bow clamp (83) spanning the upper cylinder end (6) on the inner side (9) of the cylinder or a lateral edge of an inner annular channel provided in the upper cylinder end (6'), said bow clamp having at least one clamp section (832) engaging in a spring-like manner behind a counter-support (91).

IPC 8 full level
D04B 15/06 (2006.01); **D04B 15/14** (2006.01)

CPC (source: CN EP KR US)
D04B 15/14 (2013.01 - CN EP KR US); **D04B 15/06** (2013.01 - US)

Citation (search report)
See references of WO 2016142843A1

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)
DE 102015103639 A1 20160915; DE 102015103639 B4 20200423; BR 112017017978 A2 20180410; CN 107429449 A 20171201; EP 3268526 A1 20180117; EP 3268526 B1 20201230; JP 2018512517 A 20180517; KR 20170125969 A 20171115; TW 201704578 A 20170201; US 10240267 B2 20190326; US 2018057981 A1 20180301; WO 2016142843 A1 20160915

DOCDB simple family (application)
DE 102015103639 A 20150312; BR 112017017978 A 20160307; CN 201680014585 A 20160307; EP 16712075 A 20160307; IB 2016051286 W 20160307; JP 2017548187 A 20160307; KR 20177029350 A 20160307; TW 105107421 A 20160310; US 201615555989 A 20160307