

Title (en)  
FLAT KNITTING MACHINE

Title (de)  
FLACHSTRICKMASCHINE

Title (fr)  
TRICOTEUSE RECTILIGNE

Publication  
**EP 3546630 A1 20191002 (EN)**

Application  
**EP 19166015 A 20190328**

Priority  
JP 2018069638 A 20180330

Abstract (en)  
A flat knitting machine that can speedily and accurately measure knitting yarn tension during knitting is provided. The flat knitting machine 1 includes: a needle bed 1B that has multiple knitting needles; a yarn feeder 2A that is attached to a rail 1R that is parallel to the length direction of the needle beds 1B, the yarn feeder 2A travelling along the rail 1R and feeding yarn (9) to a needle bed gap of the needle beds 1B; a knitting condition adjustment apparatus 5 that adjusts a knitting condition related to yarn feeding; and a knitting condition control unit that controls the knitting condition adjustment apparatus 5 based on the tension of the knitting yarn 9. The yarn feeder 2A includes a tension sensor 4 that acquires information related to the tension of the knitting yarn 9 and outputs the information to the knitting condition control unit.

IPC 8 full level  
**D04B 15/56** (2006.01); **D04B 15/44** (2006.01); **D04B 15/48** (2006.01)

CPC (source: CN EP KR)  
**D04B 7/00** (2013.01 - CN); **D04B 15/00** (2013.01 - CN); **D04B 15/12** (2013.01 - KR); **D04B 15/38** (2013.01 - CN);  
**D04B 15/44** (2013.01 - CN EP KR); **D04B 15/48** (2013.01 - EP); **D04B 15/56** (2013.01 - EP KR)

Citation (applicant)  
• DE 4308251 A1 19931104 - SCHIEBER UNIVERSAL MASCHF [DE]  
• CN 101139777 A 20080312 - JIALIN FENG [CN]

Citation (search report)  
• [XY] US 5640858 A 19970624 - KOMENDA MARTIN [DE], et al  
• [Y] US 4752044 A 19880621 - MEMMINGER GUSTAV [DE], et al  
• [Y] US 6131842 A 20001017 - SCHMODDE HERMANN [DE]  
• [A] US 5623840 A 19970429 - ROELL FRIEDRICH [DE]

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US11987913B2; CN113512810A; WO2023284126A1

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)  
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JP 7111491 B2 20220802; KR 102226573 B1 20210310; KR 20190114877 A 20191010

DOCDB simple family (application)  
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