

Title (en)
YARN WINDER

Title (de)
GARNWICKLER

Title (fr)
ENROULEUR DE FIL

Publication
EP 4342831 A3 20240403 (EN)

Application
EP 24155502 A 20190521

Priority
• EP 19846140 A 20190521
• JP 2018149951 A 20180809
• JP 2019019993 W 20190521

Abstract (en)
A yarn winder 1 is configured to form a wound package Pw by unwinding a yarn Y from a yarn supply package (Ps) which is rotating and by winding the yarn onto a winding bobbin Bw which is provided at least on one side of the yarn supply package Ps in an axial direction of the yarn supply package Ps, the yarn winder 1 comprising a direction changing unit 23 which is provided outside the yarn supply package Ps in a radial direction of the yarn supply package Ps and which is configured to guide the yarn to one side in a guide direction having a component in the axial direction, the direction changing unit 23 being configured to be movable in a moving direction, the moving direction and the guide direction forming an angle θ_2 which is 45 degrees or less, and a predetermined power being applied to the direction changing unit 23 at least toward the other side in the guide direction, characterized in that the direction changing unit 23 is configured to be freely movable in the moving direction and by further comprising: an unwinding driving unit 22 configured to rotationally drive the yarn supply package Ps; a winding driving unit 32 configured to rotationally drive the wound package Pw; a position detection unit 43 configured to detect a position of the direction changing unit 23 in the moving direction; and a controller 13 configured to control at least one of the unwinding driving unit 22 and the winding driving unit 32 based on a detection result provided by the position detection unit 43.

IPC 8 full level
B65H 57/18 (2006.01); **B65H 49/18** (2006.01); **B65H 49/34** (2006.01); **B65H 57/28** (2006.01); **B65H 59/38** (2006.01)

CPC (source: EP)
B65H 49/34 (2013.01); **B65H 57/18** (2013.01); **B65H 57/28** (2013.01); **B65H 59/387** (2013.01); **B65H 2701/31** (2013.01)

Citation (search report)
• [A] JP S4843977 B1 19731221
• [A] FR 2796056 A1 20010112 - FORT MAURICE ETS [FR]

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 3835244 A1 20210616; **EP 3835244 A4 20220427**; **EP 3835244 B1 20240731**; CN 112424100 A 20210226; CN 112424100 B 20220722; EP 4342831 A2 20240327; EP 4342831 A3 20240403; JP 7047101 B2 20220404; JP WO2020031457 A1 20210802; TW 202009204 A 20200301; TW I765167 B 20220521; WO 2020031457 A1 20200213

DOCDB simple family (application)
EP 19846140 A 20190521; CN 201980047156 A 20190521; EP 24155502 A 20190521; JP 2019019993 W 20190521; JP 2020536334 A 20190521; TW 108125199 A 20190717