

Title (en)

YARN END UNTWISTING PIPE, YARN JOINING DEVICE, AND YARN WINDING MACHINE

Title (de)

GARNENDENTFLECHTUNGSROHR, GARNVERBINDUNGSVORRICHTUNG UND GARNWICKELMASCHINE

Title (fr)

TUYAU DE DÉTissage D'EXTRÉMITÉ DE FIL, DISPOSITIF DE JONCTION DE FIL ET MACHINE DE BOBINAGE DE FIL

Publication

**EP 4155249 A1 20230329 (EN)**

Application

**EP 22196846 A 20220921**

Priority

JP 2021155731 A 20210924

Abstract (en)

A first yarn end untwisting pipe (40A) includes a hollow pipe main body (41) that extends in an axial direction (D1). An injection hole (43) is formed in a peripheral wall (42) of the pipe main body (41). A first opening part (45), which is an inlet of the injection hole (43), is formed on an outer surface of the peripheral wall (42), and a second opening part (46), which is an outlet of the injection hole (43), is formed on an inner surface of the peripheral wall (42). The second opening part (46) is positioned closer to a second end (41b) than the first opening part (45). The first opening part (45) is an elongated hole that extends in a width direction (D3) that is orthogonal to the axial direction (D1).

IPC 8 full level

**B65H 69/06** (2006.01)

CPC (source: EP)

**B65H 69/063** (2013.01); **B65H 2701/31** (2013.01)

Citation (applicant)

JP S58144063 A 19830827 - MURATA MACHINERY LTD

Citation (search report)

- [XDAYI] JP S58144063 A 19830827 - MURATA MACHINERY LTD
- [Y] DE 102016204524 A1 20160922 - MURATA MACHINERY LTD [JP]
- [XI] US 4549392 A 19851029 - KIMURA HIDETOSHI [JP]

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**EP 4155249 A1 20230329**; CN 115849111 A 20230328; JP 2023046891 A 20230405

DOCDB simple family (application)

**EP 22196846 A 20220921**; CN 202211072665 A 20220902; JP 2021155731 A 20210924