

Title (en)  
YARN WINDING MACHINE

Title (de)  
GARNWICKELMASCHINE

Title (fr)  
MACHINE DE BOBINAGE DE FIL

Publication  
**EP 4197949 A1 20230621 (EN)**

Application  
**EP 22210857 A 20221201**

Priority  
JP 2021204504 A 20211216

Abstract (en)  
A winding unit (10) unwinds a yarn (20) from a cross-wound package (21) and winds the yarn (20) into a package (30). The winding unit (10) includes: an optical sensor (45) that is arranged on a side of the cross-wound package (21) and detects a yarn layer of the cross-wound package (21); and a sensor moving device (60) including a drive motor (61) that moves the optical sensor (45) in a predetermined moving direction (D2).

IPC 8 full level  
**B65H 63/08** (2006.01)

CPC (source: CN EP)  
**B65H 54/06** (2013.01 - CN); **B65H 54/28** (2013.01 - CN); **B65H 54/70** (2013.01 - CN); **B65H 54/74** (2013.01 - CN); **B65H 59/06** (2013.01 - CN); **B65H 59/40** (2013.01 - CN); **B65H 61/00** (2013.01 - CN); **B65H 63/082** (2013.01 - CN EP); **B65H 2701/31** (2013.01 - CN EP)

Citation (applicant)  
JP H0485266 A 19920318 - MURATA MACHINERY LTD

Citation (search report)  
• [XYI] GB 839368 A 19600629 - REINERS WALTER  
• [XYI] US 2020024100 A1 20200123 - NIE JIAN [CN], et al  
• [Y] JP S61254473 A 19861112 - TEIJIN SEIKI CO LTD

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4197949 A1 20230621**; CN 116265362 A 20230620; JP 2023089779 A 20230628

DOCDB simple family (application)  
**EP 22210857 A 20221201**; CN 202211500379 A 20221128; JP 2021204504 A 20211216