

Title (en)  
YARN WINDING MACHINE AND SPINNING MACHINE

Title (de)  
GARNWICKELMASCHINE UND SPINNMASCHINE

Title (fr)  
MACHINE DE BOBINAGE DE FIL ET MACHINE À FILER

Publication  
**EP 3326946 A1 20180530 (EN)**

Application  
**EP 17200388 A 20171107**

Priority  
JP 2016231138 A 20161129

Abstract (en)  
A cradle (81) holding a package (P) is swingably supported by a swinging arm (83). By swinging the swinging arm (83), the cradle (81) can be moved between a winding position and a service position on a front side of the winding position and lower than the winding position. A service vehicle (3) movable in a left-right direction along a plurality of winding units includes a moving operation section (103). The moving operation section (103) includes cylinders (121, 122) and a hook (123). The moving operation section (103) extends/contracts the cylinders (121, 122) to swing the swinging arm (83) with the hook (123) connected to a connecting portion (83a) of the swinging arm (83).

IPC 8 full level  
**B65H 54/553** (2006.01); **B65H 54/26** (2006.01); **B65H 63/04** (2006.01); **B65H 67/08** (2006.01); **D01H 13/00** (2006.01)

CPC (source: CN EP)  
**B65H 54/26** (2013.01 - EP); **B65H 54/553** (2013.01 - EP); **B65H 63/04** (2013.01 - EP); **B65H 67/04** (2013.01 - CN); **B65H 67/085** (2013.01 - EP); **D01H 9/00** (2013.01 - EP); **D01H 13/005** (2013.01 - EP); **B65H 2701/31** (2013.01 - CN EP)

Citation (applicant)  
• JP 2015101453 A 20150604 - MURATA MACHINERY LTD  
• JP 2016172602 A 20160929 - MURATA MACHINERY LTD

Citation (search report)  
• [XAI] US 2757874 A 19560807 - BROOKS MARCELLUS  
• [XA] EP 1524340 A2 20050420 - SAVIO MACCHINE TESSILI SPA [IT]  
• [A] US 3552666 A 19710105 - STENMANS HEINZ, et al  
• [A] US 4582269 A 19860415 - ROBINSON ANTHONY J [GB], et al  
• [A] US 4572449 A 19860225 - NAYLOR GEOFFREY [GB]  
• [AP] EP 3103750 A1 20161214 - MURATA MACHINERY LTD [JP]

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CN109466969A

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

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**EP 3326946 A1 20180530**; CN 108116942 A 20180605; JP 2018087067 A 20180607

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