



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
18.11.2015 Bulletin 2015/47

(51) Int Cl.:
B65H 63/06 (2006.01) B65H 63/08 (2006.01)
B65H 57/22 (2006.01)

(43) Date of publication A2:
29.01.2014 Bulletin 2014/05

(21) Application number: **13175876.5**

(22) Date of filing: **10.07.2013**

(84) Designated Contracting States:
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 States:
BA ME

(71) Applicant: **Murata Machinery, Ltd.**
Minami-ku
Kyoto-shi
Kyoto 601-8326 (JP)

(72) Inventor: **Fukuhara, Shuichi**
Kyoto, 612-8686 (JP)

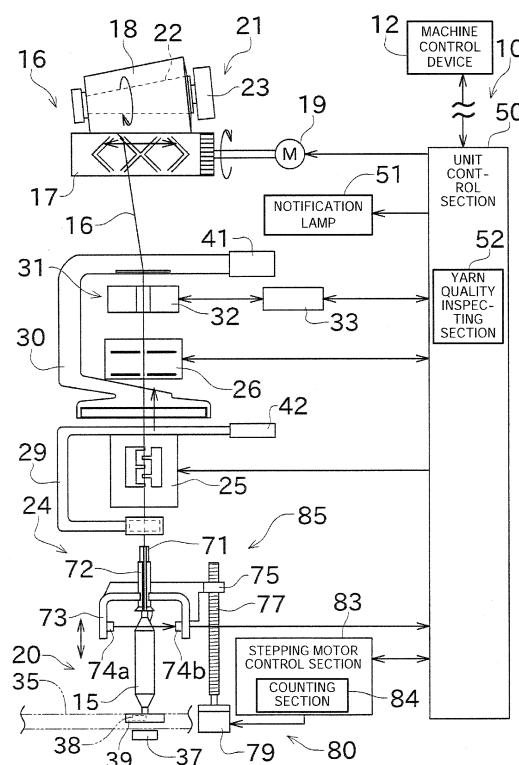
(30) Priority: **27.07.2012 JP 2012167376**

(74) Representative: **Hoffmann Eitle**
Patent- und Rechtsanwälte PartmbB
Arabellastraße 30
81925 München (DE)

(54) **Yarn winding machine**

(57) An automatic winder (yarn winding machine) includes a transportation tray 39, a chase portion detecting sensor 74, a yarn quality measuring device, and a yarn quality inspecting section. A yarn supplying bobbin 15 is set in the transportation tray 39. The chase portion detecting sensor 74 detects an unwinding position of the yarn supplying bobbin 15 set in the transportation tray 39. The yarn quality measuring device measures quality of a yarn unwound from the yarn supplying bobbin 15. The yarn quality inspecting section manages the quality of the yarn in accordance with the unwinding position detected by the chase portion detecting sensor 74 and the quality of the yarn measured by the yarn quality measuring device.

FIG. 2





EUROPEAN SEARCH REPORT

Application Number
EP 13 17 5876

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y,D	JP 2011 020837 A (MURATA MACHINERY LTD) 3 February 2011 (2011-02-03) * abstract; figures * & EP 2 455 317 A1 (MURATA MACHINERY LTD [JP]) 23 May 2012 (2012-05-23) * paragraphs [0005], [0006], [0009], [0014], [0015], [0016], [0073], [0074], [0084] - [0086], [0089], [0094], [0095]; claim 1; examples *	1-9	INV. B65H63/06 B65H63/08 B65H57/22
Y	EP 1 813 563 A2 (MURATA MACHINERY LTD [JP]) 1 August 2007 (2007-08-01) * paragraphs [0034] - [0036], [0046], [0048] *	1-6,9	
Y	DE 39 42 304 A1 (SCHLAFHORST & CO W [DE]) 27 June 1991 (1991-06-27) * column 8, line 41 - column 9, line 14; figure 3 *	7,8	
A	WO 2011/061895 A1 (MURATA MACHINERY LTD [JP]; TANIGAWA YASUNOBU [JP]) 26 May 2011 (2011-05-26) * figures * & EP 2 502 865 A1 (MURATA MACHINERY LTD [JP]) 26 September 2012 (2012-09-26) * paragraph [0064]; figures *	1-6,9	TECHNICAL FIELDS SEARCHED (IPC) B65H
A	JP H03 249067 A (MURATA MACHINERY LTD) 7 November 1991 (1991-11-07) * abstract; figures *	7	
A	DD 252 592 A1 (TEXTIMA VEB K [DD]) 23 December 1987 (1987-12-23) * the whole document *	7	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 12 October 2015	Examiner Lemmen, René
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 13 17 5876

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

12-10-2015

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2011020837 A	03-02-2011	CN 102471009 A	23-05-2012
		EP 2455317 A1	23-05-2012
		JP 2011020837 A	03-02-2011
		WO 2011007512 A1	20-01-2011
EP 1813563 A2	01-08-2007	EP 1813563 A2	01-08-2007
		EP 1947046 A1	23-07-2008
		EP 1947047 A1	23-07-2008
		JP 2007204191 A	16-08-2007
DE 3942304 A1	27-06-1991	DE 3942304 A1	27-06-1991
		US 5142159 A	25-08-1992
WO 2011061895 A1	26-05-2011	CN 102612478 A	25-07-2012
		EP 2502865 A1	26-09-2012
		JP 2011105460 A	02-06-2011
		WO 2011061895 A1	26-05-2011
JP H03249067 A	07-11-1991	NONE	
DD 252592 A1	23-12-1987	NONE	

EPO FORM P0489

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82