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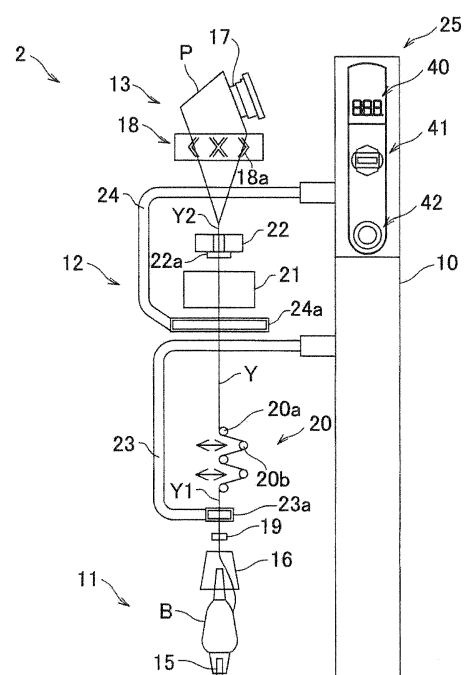
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(54) **Yarn winding device**

(57) An automatic winder includes a plurality of winding units (2) adapted to wind a yarn (Y) to form a package (P). Each winding unit (2) includes a yarn supplying section (11), a winding section (13) adapted to wind the yarn (Y) supplied from the yarn supplying section (11), a yarn clearer (22) adapted to detect a state of the yarn (Y) between the yarn supplying section (11) and the winding section (13), and a display section (40) adapted to display information associated with the winding unit (2). The display section (40) displays the information associated with the state of the yarn (Y) detected by the yarn clearer (22).

FIG. 2



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EUROPEAN SEARCH REPORT

Application Number
EP 13 16 7607

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 4 843 808 A (RUEGE JOACHIM [DE] ET AL) 4 July 1989 (1989-07-04) * column 1, line 67 - column 2, line 13 * * column 2, lines 35-39, lines 58-63 * * column 3, line 30 - column 5, line 29 *	1-6	INV. B65H63/06
X	DE 41 37 742 A1 (MURATA MACHINERY LTD [JP]) 21 May 1992 (1992-05-21) * column 4, lines 20-50 *	1	
Y	EP 2 455 318 A1 (MURATA MACHINERY LTD [JP]) 23 May 2012 (2012-05-23) * paragraphs [0065], [0067] *	1,2,4-6	
Y	LAPPAGE J ET AL: "An instrument for the study of yarn hairiness", JOURNAL OF THE TEXTILE INSTITUTE TRANSACTIONS, UNITED KINGDOM, vol. 55, no. 8, 1 August 1964 (1964-08-01), pages T381-T395, XP002694650, ISSN: 0368-4482 * page T381 - page T382; figure 3 *	1,2,4-6	
A	EP 0 943 572 A2 (MURATA KIKAI KK) 22 September 1999 (1999-09-22) * claim 1 *	1-6	TECHNICAL FIELDS SEARCHED (IPC) B65H D03J D01H
A	DE 198 24 078 A1 (ZINSER TEXTILMASCHINEN GMBH [DE]) 9 December 1999 (1999-12-09) * column 5, lines 34-42; claims 1,5,16 *	1-6	
A	WO 99/54532 A1 (RIETER AG MASCHF [CH]; KURATLE CHRISTOPH [CH]) 28 October 1999 (1999-10-28) * page 9, line 6 - page 11, line 30; figure 1 *	1-6	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 14 November 2014	Examiner Pussemier, Bart
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	



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Application Number
EP 13 16 7607

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A,D	JP 2004 352465 A (MURATA MACHINERY LTD) 16 December 2004 (2004-12-16) * abstract; figure 1 * -----	1-6	
			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 14 November 2014	Examiner Pussemier, Bart
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	

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

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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
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14-11-2014

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4843808 A	04-07-1989	DE 3712654 A1	27-10-1988
		IT 1218212 B	12-04-1990
		JP S6440628 A	10-02-1989
		US 4843808 A	04-07-1989
DE 4137742 A1	21-05-1992	DE 4137742 A1	21-05-1992
		IT 1250138 B	30-03-1995
		JP H04180184 A	26-06-1992
EP 2455318 A1	23-05-2012	CN 102471008 A	23-05-2012
		EP 2455318 A1	23-05-2012
		JP 2011020838 A	03-02-2011
		WO 2011007513 A1	20-01-2011
EP 0943572 A2	22-09-1999	NONE	
DE 19824078 A1	09-12-1999	DE 19824078 A1	09-12-1999
		EP 1000186 A1	17-05-2000
		JP 4484187 B2	16-06-2010
		JP 2002517617 A	18-06-2002
		WO 9963139 A1	09-12-1999
WO 9954532 A1	28-10-1999	AU 2829899 A	08-11-1999
		WO 9954532 A1	28-10-1999
JP 2004352465 A	16-12-2004	CN 1572698 A	02-02-2005
		EP 1481932 A1	01-12-2004
		JP 3697590 B2	21-09-2005
		JP 2004352465 A	16-12-2004