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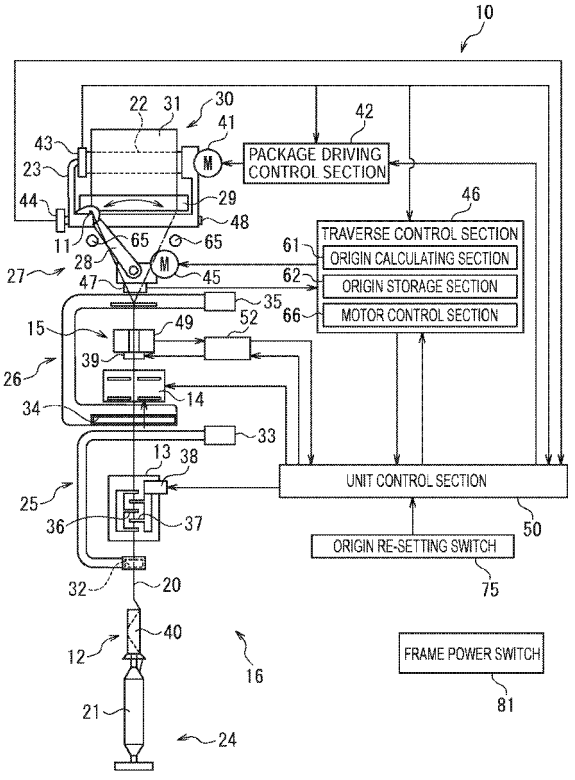
(54) Yarn Winding Apparatus

(57) The present invention provides a yarn winding apparatus (10) that can efficiently form a package with improved quality. In an automatic winder, a package driving motor (41) rotationally drives a winding bobbin around which a yarn is wound. A traverse guide (11) traverses the yarn. The traverse guide is reciprocatingly driven by a traverse guide driving motor (45). A reference position (110) serving as a reference for the reciprocating driving is determined by a reference position determining section (61) and stored in a reference position storage section (62). A motor control section (46, 50) controls the traverse guide driving motor (41) by continuously applying, from beginning to end of winding, the reference position determined by the reference position calculating section (61) and stored in the reference position storage section (62) before the yarn starts to be wound into the package. (Fig. 1)

FIGURE 1



EP 2 105 398 A3

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EUROPEAN SEARCH REPORT

Application Number
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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	DE 10 2005 029150 B3 (SAHM GEORG FA [DE]) 9 November 2006 (2006-11-09) * paragraphs [0005], [0032] - [0034] *	1-4	INV. B65H54/28
X	EP 1 125 877 A1 (SSM AG [CH]) 22 August 2001 (2001-08-22) * paragraph [0022]; figure *	1-4	
X,D	JP 2004 189359 A (MURATA MACHINERY LTD) 8 July 2004 (2004-07-08) * abstract; figures *	1	
X	EP 1 684 403 A1 (SAURER GMBH & CO KG [DE] OERLIKON TEXTILE GMBH & CO KG [DE]) 26 July 2006 (2006-07-26) * paragraphs [0001], [0015], [0032], [0037] - [0040]; figures *	1	
X	WO 99/05055 A1 (BARMAG BARMER MASCHF [DE]; LIEBER REINHARD [DE]; LENZ FRIEDHELM [DE]) 4 February 1999 (1999-02-04) * page 4, lines 10-19 * * page 12, lines 8-12; figures *	1	TECHNICAL FIELDS SEARCHED (IPC) B65H
A	WO 00/24663 A1 (RIETER AG MASCHF [CH]; SYNDIKUS HEIKE [CH]; SCHAAD MARC [CH]; BRODER B) 4 May 2000 (2000-05-04) * page 21, line 11 - page 22, line 12; figures *	1-4	
A	EP 1 679 277 A2 (SAURER GMBH & CO KG [DE] OERLIKON TEXTILE GMBH & CO KG [DE]) 12 July 2006 (2006-07-12) * paragraphs [0010], [0011], [0014] - [0017], [0019], [0020], [0033], [0036] - [0039]; figures *	1-4	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	27 August 2010	Lemmen, René

CATEGORY OF CITED DOCUMENTS

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27-08-2010

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 102005029150 B3	09-11-2006	EP 1736429 A2	27-12-2006
EP 1125877 A1	22-08-2001	NONE	
JP 2004189359 A	08-07-2004	NONE	
EP 1684403 A1	26-07-2006	CN 1807719 A	26-07-2006
		DE 102005002409 A1	27-07-2006
		US 2006157609 A1	20-07-2006
WO 9905055 A1	04-02-1999	CN 1265077 A	30-08-2000
		EP 0999992 A1	17-05-2000
		JP 4155705 B2	24-09-2008
		JP 2001510769 T	07-08-2001
		TR 200000187 T2	21-11-2000
		US 6405966 B1	18-06-2002
WO 0024663 A1	04-05-2000	AU 6322499 A	15-05-2000
		CH 693094 A5	28-02-2003
		EP 1124748 A1	22-08-2001
		JP 2002528358 T	03-09-2002
EP 1679277 A2	12-07-2006	CN 1799978 A	12-07-2006
		DE 102005001094 A1	20-07-2006
		JP 2006193334 A	27-07-2006

EPO FORM P0459

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