



EP 2 028 301 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
30.12.2009 Bulletin 2009/53

(51) Int Cl.:
D01H 7/86 (2006.01)

(43) Date of publication A2:
25.02.2009 Bulletin 2009/09

(21) Application number: 08160642.8

(22) Date of filing: 17.07.2008

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT
RO SE SI SK TR

Designated Extension States:
AL BA MK RS

(30) Priority: 01.08.2007 IT MI20071579

(71) Applicant: Savio Macchine Tessili S.p.A.
33170 Pordenone (IT)

(72) Inventors:

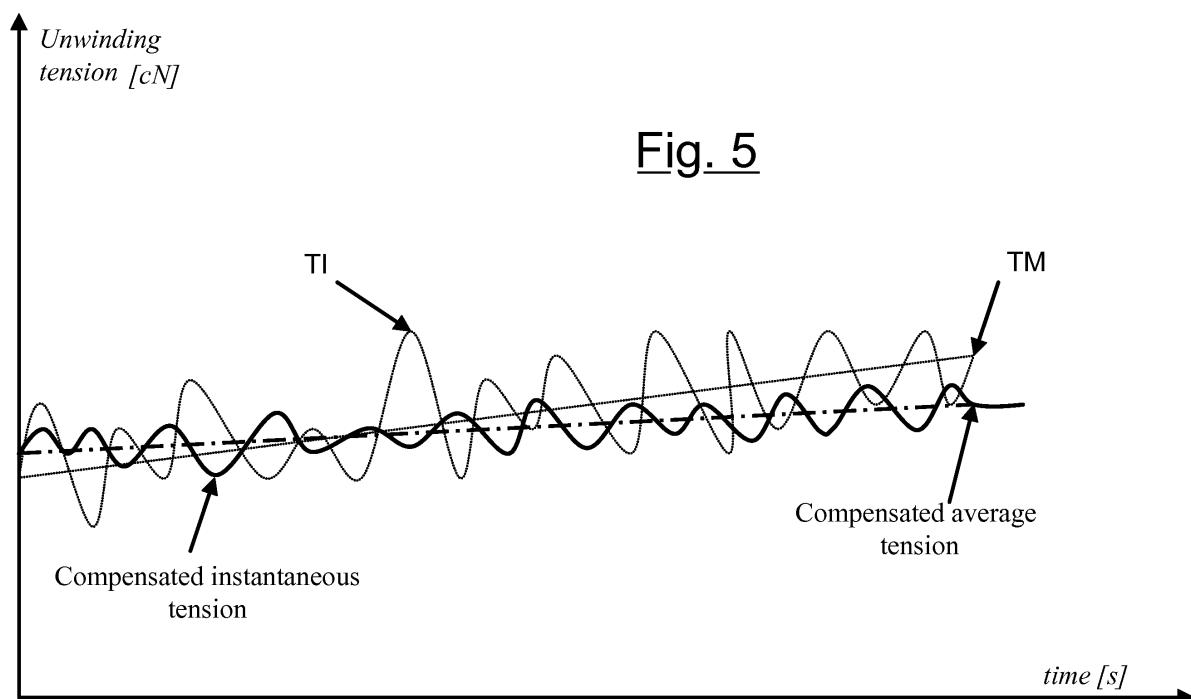
- Badiali, Roberto
33170 Pordenone (IT)
- D'Agnolo, Fabio
33080 Porcia (Pordenone) (IT)

(74) Representative: Fusina, Gerolamo et al
Ing. Barzanò & Zanardo Milano S.p.A,
Via Borgonuovo, 10
20121 Milano (IT)

(54) Compensation device of the tension pulsations in four-for-one twisting spindles

(57) Device for compensating the feed tension in four-for-one twisting spindles in which a doubled yarn is unwound from a rotating unwinder which rotates by following the unwinding of the feed yarn, in which the yarn

re-ascends a re-ascending internal axial cavity in which a compensator device is inserted, which lengthens and shortens the run of the yarn at its interior as a function of its tension.





EUROPEAN SEARCH REPORT

Application Number
EP 08 16 0642

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (IPC)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
Y	EP 1 045 053 A (MURATA MACHINERY LTD [JP]) 18 October 2000 (2000-10-18)	1	INV. D01H7/86
A	* paragraphs [0042], [0043]; figure 1A *	2-5	D01H13/10
Y	US 4 642 980 A (FUKUNAGA MITSUO [JP] ET AL) 17 February 1987 (1987-02-17) * column 3, lines 5-68; figures 2a,2b *	1	
A,D	WO 98/55675 A (AGNOLO ARMANDO D [IT]) 10 December 1998 (1998-12-10) * the whole document *	1	
			TECHNICAL FIELDS SEARCHED (IPC)
			D01H
<p>The present search report has been drawn up for all claims</p> <p>3</p>			
Place of search		Date of completion of the search	Examiner
Munich		25 November 2009	Dreyer, Claude
CATEGORY OF CITED DOCUMENTS		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	
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			

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

EP 08 16 0642

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.

25-11-2009

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
EP 1045053	A	18-10-2000	CN KR	1269433 A 20010020707 A		11-10-2000 15-03-2001
US 4642980	A	17-02-1987	DE ES IT JP JP	3347318 A1 8501814 A1 1197767 B 59043403 Y2 59103778 U		05-07-1984 01-03-1985 06-12-1988 22-12-1984 12-07-1984
WO 9855675	A	10-12-1998	AU DE DE EP IT JP US	7349398 A 69812648 D1 69812648 T2 1007773 A1 UD970104 A1 2002502468 T 6298648 B1		21-12-1998 30-04-2003 05-02-2004 14-06-2000 07-12-1998 22-01-2002 09-10-2001