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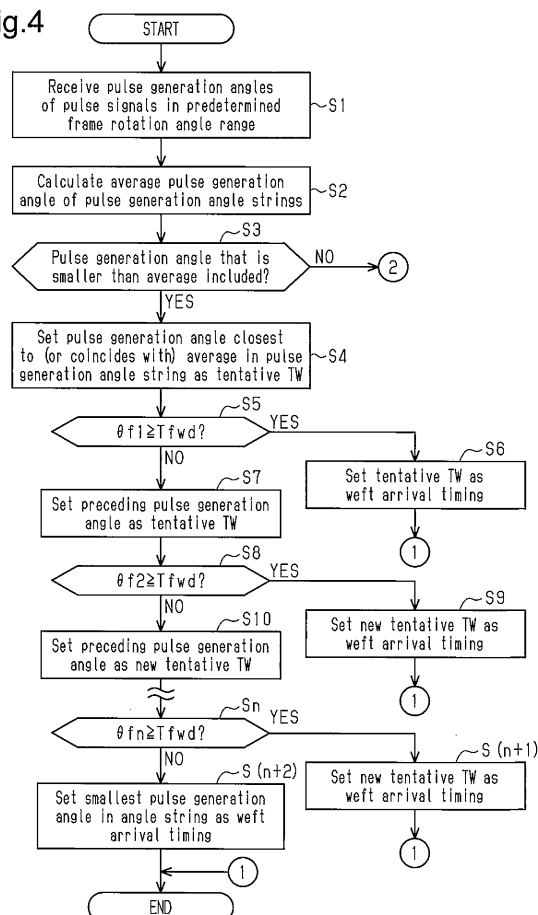
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(54) **WEFT DETECTION METHOD AND WEFT DETECTION DEVICE FOR JET LOOM**

(57) A CPU adds pulse generation angles to pulse signals input by a photoelectric detector and forms a pulse generation angle string with the pulse generation angles of the input pulse signals. The pulse generation angle string formed by the CPU for each pick is stored in a memory. The CPU also functions as an average weft arrival timing calculating means, a first tentative weft arrival timing setting means, a first weft arrival timing determining means, a second tentative weft arrival timing setting means, and a second weft arrival timing determining means.

Fig.4





EUROPEAN SEARCH REPORT

Application Number
EP 17 15 8313

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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)
A,D	JP H04 24245 A (TOYODA AUTOMATIC LOOM WORKS) 28 January 1992 (1992-01-28) * abstract; figures 1-5 * -----	1-3	INV. D03D47/30
A	US 4 716 941 A (TAKEGAWA YUJIRO [JP]) 5 January 1988 (1988-01-05) * claim 1; figures 1-7 * -----	1-3	
A	JP H04 272255 A (TOYODA AUTOMATIC LOOM WORKS) 29 September 1992 (1992-09-29) * abstract; figures 1-5 * -----	1-3	
			TECHNICAL FIELDS SEARCHED (IPC)
			D03D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 5 September 2017	Examiner Iamandi, Daniela
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.**

EP 17 15 8313

5 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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05-09-2017

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP H0424245 A	28-01-1992	JP 2636467 B2	30-07-1997
		JP H0424245 A	28-01-1992
US 4716941 A	05-01-1988	DE 3673373 D1	13-09-1990
		EP 0229432 A2	22-07-1987
		JP H0819604 B2	28-02-1996
		JP S62162050 A	17-07-1987
		US 4716941 A	05-01-1988
JP H04272255 A	29-09-1992	EP 0500498 A1	26-08-1992
		JP 2611700 B2	21-05-1997
		JP H04272255 A	29-09-1992