



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
15.11.2017 Bulletin 2017/46

(51) Int Cl.:
D03D 51/08 (2006.01) D03D 47/32 (2006.01)

(43) Date of publication A2:
05.07.2017 Bulletin 2017/27

(21) Application number: **16206650.0**

(22) Date of filing: **23.12.2016**

(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
Designated Validation States:
MA MD

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(30) Priority: **28.12.2015 CZ 20150939**

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(54) **METHOD FOR REMOVING A WEFT INCORRECTLY INSERTED BY A HYDRAULIC PICK INTO THE SHED OF A WEAVING MACHINE AND A HYDRAULIC DEVICE FOR PERFORMING THE METHOD**

(57) The subject of the invention is a method for removing a weft incorrectly inserted into the shed of a hydraulic weaving machine. The removal of the weft on the hydraulic weaving machine is carried out through a sequence of consecutive dependent operations, by the control system without operator intervention, whereby these operations, if performed correctly, lead to detecting the defectively inserted weft in the fabric, removing the defectively inserted weft, replacing it with a new weft and

finally to automatic restart of the machine to resume normal production mode. All these tasks, including current control of all the operations of the sequence, are performed without machine operator intervention. Automatic removal of the weft is performed by some standard systems used on the machine and by a system of checking whether the removal of the weft has been successful and of subsequent checking whether the new weft insertion into the shed has been successful.

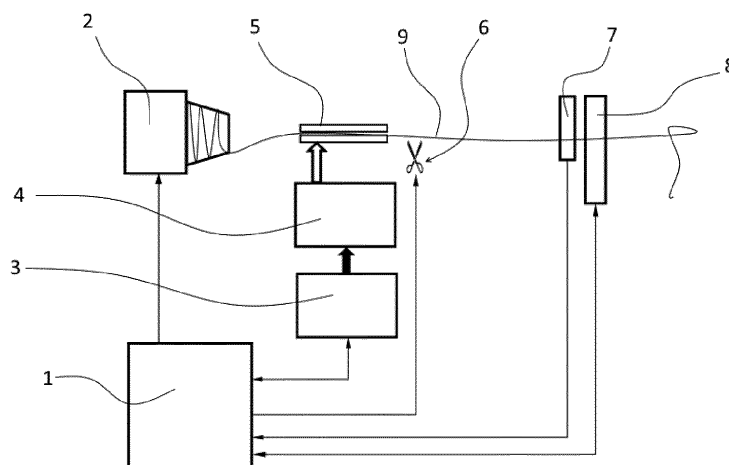


Fig. 1



EUROPEAN SEARCH REPORT

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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)
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A	* column 2, line 6 - column 4, line 3; figures 1-5 *	1-3	
Y	US 4 781 221 A (ONISHI KIMIMASA [JP] ET AL) 1 November 1988 (1988-11-01)	4-8,10	
A	* abstract * * column 1, line 46 - column 2, line 12 * * column 37, lines 18-24; figures 1,2,46 *	1-3	
A	US 5 251 674 A (NAKANO AKIRA [JP]) 12 October 1993 (1993-10-12)	1-3	TECHNICAL FIELDS SEARCHED (IPC) D03D
Y	CN 104 846 513 A (SUZHOU HUAYI MACHINE CO LTD) 19 August 2015 (2015-08-19)	4-8,10	
	* abstract * * column 2, lines 13-51; figures 1-7 *		
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 4 October 2017	Examiner Louter, Petrus
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)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-3

Restarting or stopping the loom depending on a determined number of threads in a control zone

2. claims: 4-10

Individual weft insertion pump drive

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

EP 16 20 6650

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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

04-10-2017

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