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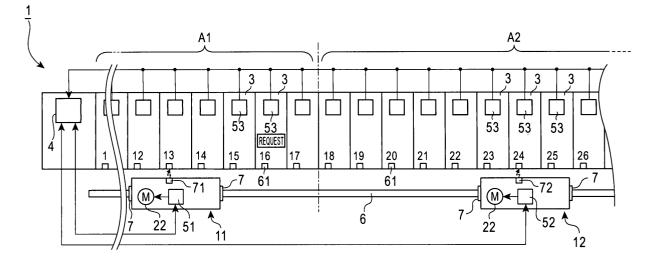
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## (54) Service carriage control system

(57) The present invention enables efficient operations in a control system that operates in response to a request for yarn splicing made by each of a plurality of processing units 3, to stop one of a plurality of service carriages running along the same running path 6, at the processing unit for yarn splicing. Work areas are assigned to yarn splicing carriages 11, 12; for example, spinning units 3 nos. 1 to 17 are assigned to the work area A1 of the first yarn splicing carriage 11 and spinning units 3 nos. 18 to 34 are assigned to the work area A2 of the second yarn splicing carriage 12. If the spinning

unit 3 no. 18 makes a yarn yarn splicing request, the system performs control such that the second yarn yarn splicing carriage 12 is dispatched, which covers the work area A2 to which the spinning unit 3 no. 18 belongs. The first yarn splicing carriage 11 calculates the distance between the current position of the carriage 11 and the yarn splicing requesting unit (no. 18). If the distance has at most a predetermined value, the system performs control such that the second yarn splicing carriage is withdrawn and moved away from the yarn splicing requesting unit (Fig.1)

FIG. 1





## **EUROPEAN SEARCH REPORT**

Application Number EP 05 00 5494

Category	Citation of document with indication of relevant passages	ation, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Х	US 4 901 246 A (MEYER 13 February 1990 (199 * the whole document	0-02-13)	1	B65H54/26 D01H15/013
Х	DE 24 54 483 A1 (W. S SCHLAFHORST & CO, 405 DE) 20 May 1976 (1976 * page 1 - page 7 *	O MOENCHENGLADBACH,	1,7	
A	US 3 077 311 A (FURST 12 February 1963 (196 * column 10, line 49 *	3-02-12)	1,7	
A	PATENT ABSTRACTS OF J vol. 017, no. 211 (C- 26 April 1993 (1993-0 & JP 04 352827 A (TOR 7 December 1992 (1992 * abstract *	1052), 4-26) AY ENG CO LTD),	1,7	
A	DE 27 36 849 A1 (ZINS GMBH; ZINSER TEXTILMA EBERSBA) 1 March 1979 * page 2, line 21 - p figures 2,3 *	SCHINEN GMBH, 7333 (1979-03-01)	1,7	TECHNICAL FIELDS SEARCHED (Int.CI.7) D01H B65H
	The present search report has been	•		<u> </u>
Place of search  Munich		Date of completion of the search  20 October 2005	Po	Examiner Ollet, D
X : parti Y : parti docu	ATEGORY OF CITED DOCUMENTS cularly relevant if taken alone cularly relevant if combined with another ment of the same category nological background	T : theory or princip E : earlier patent do after the filing da D : document cited L : document cited f	le underlying the cument, but pub te in the applicatior or other reasons	invention lished on, or
	-written disclosure mediate document	& : member of the s		

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

EP 05 00 5494

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.

20-10-2005

Patent document cited in search report		Publication date		Patent family member(s)	Publicatio date
US 4901246	A	13-02-1990	DE EP IN JP	3862728 D1 0308711 A1 171673 A1 1097228 A	13-06-1 29-03-1 05-12-1 14-04-1
DE 2454483	A1	20-05-1976	NONE		
US 3077311	A	12-02-1963	BE CH CH DE DE DE FR GB GB US	566721 A 366225 A 377695 A 373292 A 1256122 B 1212456 B 1261432 B 1205937 A 917676 A 892614 A 936207 A 3061216 A	15-12-1 15-05-1 15-11-1 07-12-1 10-03-1 15-02-1 05-02-1 06-02-1 28-03-1 04-09-1 30-10-1
JP 04352827	Α	07-12-1992	NONE		
DE 2736849	A1	01-03-1979	NONE		