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(54) Image forming apparatus and control system therefor.

(57) A control system for a color copier which sets up an adequate color copying time for any particular size of paper sheets. A color document is repeatedly scanned by scanning optics (58) to sequentially expose a single photoconductive drum (52), which is rotated at a constant speed, to a plurality of separated color components. Each of the latent images electrostatically formed on the drum is developed by toner which is supplied from a developing device and complementary in color to the color component associated with the latent image, the resulting toner images being sequentially transferred to a paper sheet which is held on and rotated together with a transfer drum (66). The control system includes a paper size setting circuit (44) for setting the size of a paper sheet to be used before a copying operation, a scanning sensor (86) for sensing the start of a scanning performed by the optics, and a home sensor (88) for sensing an instantaneous angular position of the transfer drum. A control circuit (98) is constructed to determine a transfer start and a transfer end time in response to a paper size signal outputted by the paper size setting circuit (94), an output signal of the scanning sensor (86), and an output signal of the home sensor (88), and to variably control the rotation speed of the transfer drum during the interval between the transfer start and transfer end times so as to register the leading end of a paper sheet loaded on the transfer drum and that of each of the toner images formed on the photocondutive drum and different in color from each other. The circumferential length of one of the photoconductive and transfer drums is greater than that of the other by a multiple other than integral multiples.

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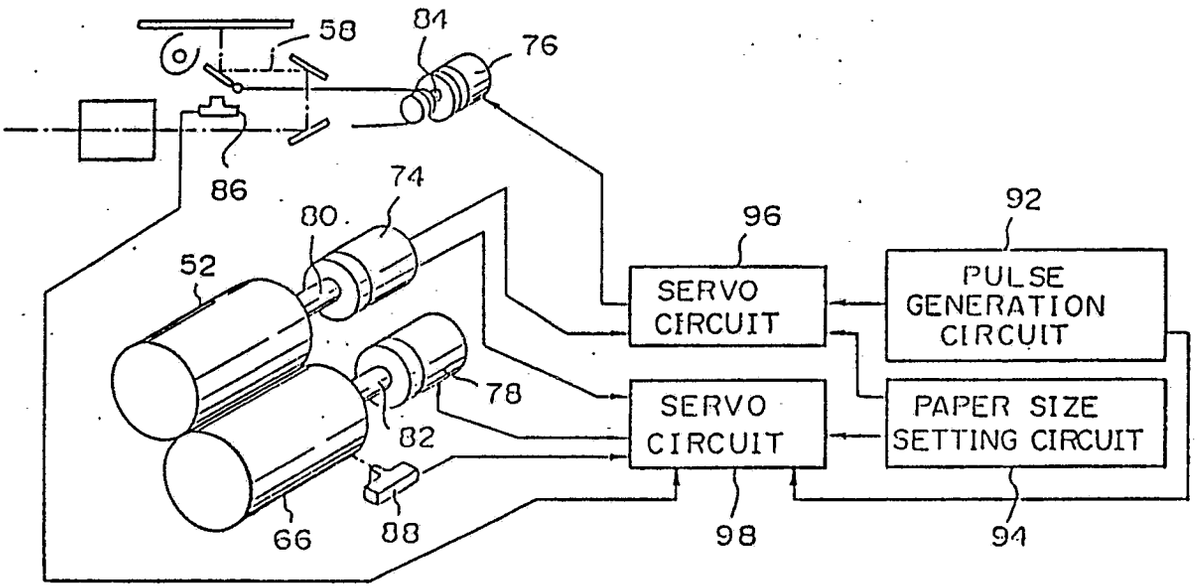
Fig. 3


58
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SERVO CIRCUIT
PULSE GENERATION CIRCUIT
SERVO CIRCUIT
PAPER SIZE SETTING CIRCUIT
98
94

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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 (Int. Cl.4)
E	US-A-4 733 269 (N. KASAHARA et al.) * complete document *	1-6,8,9,11-13	G 03 G 15/01 G 03 G 15/00
E	US-A-4 766 463 (M. WATANUKI et al.) * complete document *	1-6,8,9,11-13	
P,X	DE-A-3 704 583 (RICOH CO. LTD.) * complete document *	1-6,8,9,11-13	
P,X	US-A-4 705 386 (A. OGITA et al.) * complete document *	1-6,8,9,11-13	
D,X	PATENT ABSTRACTS OF JAPAN vol. 10, no. 84 (P-442)(2141), 3 April 1986; & JP - A - 60 218 673 (FUJI XEROX) 01.11.1985	1-6,8,9,11-13	
A	PATENT ABSTRACTS OF JAPAN vol. 9, no. 105 (P-354)(1828), 9 May 1985; & JP - A - 59 228 266 (FUJI XEROX) 21.12.1984	1,14	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	US-A-4 260 241 (T. HONMA et al.) * complete document *	1,14	G 03 G 15/00

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
BERLIN	21-03-1990	HOPPE H

CATEGORY OF CITED DOCUMENTS

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