

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 436 306 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **90313113.4**(51) Int. Cl.⁵: **G03G 15/16, G03G 15/00**(22) Date of filing: **03.12.90**

(30) Priority: **06.12.89 JP 317061/89**
06.12.89 JP 317063/89
07.12.89 JP 318509/89
11.12.89 JP 320937/89

(43) Date of publication of application:
10.07.91 Bulletin 91/28

(84) Designated Contracting States:
DE GB

(86) Date of deferred publication of the search report:
18.03.92 Bulletin 92/12

(71) Applicant: **KONICA CORPORATION**
26-2, Nishishinjuku 1-chome, Shinjuku-ku
Tokyo 160(JP)

(72) Inventor: **Fuma, Hiroshi**
c/o Konica Corporation, 2970 Ishikawa-cho
Hachioji-shi, Tokyo(JP)
 Inventor: **Motohashi, Mitsuo**
c/o Konica Corporation, 2970 Ishikawa-cho
Hachioji-shi, Tokyo(JP)
 Inventor: **Fujii, Yozo**
c/o Konica Corporation, 2970 Ishikawa-cho
Hachioji-shi, Tokyo(JP)
 Inventor: **Kakita, Akihiko**
c/o Konica Corporation, 2970 Ishikawa-cho
Hachioji-shi, Tokyo(JP)

(74) Representative: **Ben-Nathan, Laurence Albert**
et al
Urquhart-Dykes & Lord 91 Wimpole Street
London W1M 8AH(GB)

(54) **Image forming apparatus.**

(57) An image forming apparatus for forming a toner image on a peripheral surface of an image carrying drum (10) and transferring the toner image onto a recording paper. The image forming apparatus comprises a conveyor (71) to convey the recording paper, a register roller (79) to feed the same to the conveyor (71), transfer unit (70) for transferring the toner image and a pre-charging unit (60) for charging the recording paper before the transferring. A controller of the image forming apparatus controls operation timings of the above units of the image forming apparatus and forms a blank area in the leading portion of the recording paper where no image is formed and no transfer operation is performed to the recording paper by the transfer unit.

EP 0 436 306 A3



European
Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 90 31 3113

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.5)
X	EP-A-0 024 154 (RONEO ALCATEL LTD) * Abstract; claims; figures * -- --	1-6	G 03 G 15/16 G 03 G 15/00
A,D	US-A-3 357 325 (EICHORN et al.) * Claims; figure 2 * -- --	1,4-6	
A	PATENT ABSTRACTS OF JAPAN, vol. 8, no. 250 (E-279)[1687], 16th November 1984; & JP-A-59 126 366 (FUJITSU K.K.) 20-07-1984 * Abstract * -- --	1-4,6	
P,X	EP-A-0 385 674 (FUJITSU LTD) * Claims 1-8,15-17 * -- -- --	6	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			G 03 G
Place of search		Date of completion of search	Examiner
The Hague		02 December 91	LEISNER C.O.D.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone		E : earlier patent document, but published on, or after the filing date	
Y : particularly relevant if combined with another document of the same category		D : document cited in the application	
A : technological background		L : document cited for other reasons	
O : non-written disclosure		-----	
P : intermediate document		& : member of the same patent family, corresponding document	
T : theory or principle underlying the invention			