

(1) Publication number:

0 412 720 A3

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: 90308512.4

(1) Int. Cl.5: **B41F** 7/16, B41F 21/12

(22) Date of filing: 02.08.90

(30) Priority: 09.08.89 GB 8918175

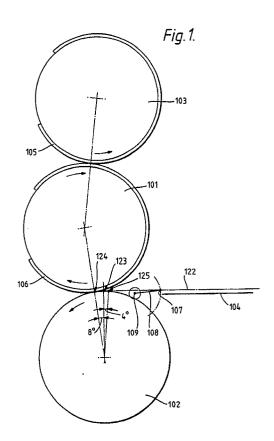
43 Date of publication of application: 13.02.91 Bulletin 91/07

Designated Contracting States:
 DE FR GB NL

© Date of deferred publication of the search report: 08.05.91 Bulletin 91/19

- 71 Applicant: CRABTREE OF GATESHEAD LIMITED
 Kingsway, Team Valley Trading Estate
 Gateshead, Tyne & Wear NE11 OSU(GB)
- Inventor: Southworth, Christopher John
 Morrison
 Woodlands Road
 Shotley Bridge, County Durham(GB)
- Representative: Norcliffe, Kenneth Adrian 33, Delph Lane Netherton Huddersfield West Yorkshire, HD4 7JA(GB)
- (54) A method of and apparatus for printing on metal sheets.
- © Sheet-fed metal decorating presses, which pass sheets successively between cylinders in mutual rolling contact, have pushed the sheets at virtually the same speed as the constant peripheral speed of the cylinders into contact with cyclically-moveable stops on one of the cylinders which stops are so pivoted inside the periphery of the cylinder that as they retract their tangential speed is appreciably less than the peripheral speed of the cylinders. The sheets are therefore abruptly decelerated and must be pushed with high force to accelerate them back to the speed of the cylinders before entering the nip, causing several disadvantages.

These are avoided by pushing the sheets at a higher speed than the constant peripheral speed of the cylinders (101, 102), and by pivoting the stops (107) about an axis (109) outside the periphery of the cylinder (102) so that they move relative to the cylinder in a substantially involute path whereby their tangential speed as they retract is substantially the same as the peripheral speed of the cylinders. As there is then no need to accelerate the sheets they can advantageously be pushed with lower force.





EUROPEAN SEARCH REPORT

EP 90 30 8512

DOCUMENTS CONSIDERED TO BE RELEVANT				
egory		n Indication, where appropriate, rant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. CI.5)
X	US-A-2 699 941 (HUCK CC * column 2, lines 18 - 50 * * c 69; figures 1-11 @ column 5 figures 15-18 *	column 3, line 42 - column 4	1,2	B 41 F 7/16 B 41 F 21/12
Α	US-A-2 809 831 (AMERICA 	AN CAN COMPANY)		
				TECHNICAL FIELDS SEARCHED (Int. Cl.5)
				B 41 F B 65 H
_	The present search report has t	peen drawn up for all claims		
	Place of search The Hague	Date of completion of sear	ch	Examiner LONCKE J.W.
CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same catagory A: technological background O: non-written disclosure P: intermediate document		JMENTS E th another D L	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	