(11) **EP 1 234 679 A3**

(12)

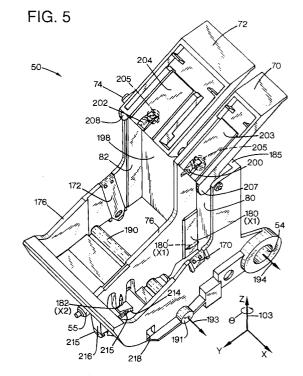
EUROPEAN PATENT APPLICATION

- (88) Date of publication A3: **27.11.2002 Bulletin 2002/48**
 - ation A3: (51) Int CI.⁷: **B41J 25/34 Bulletin 2002/48**
- (43) Date of publication A2: **28.08.2002 Bulletin 2002/35**
- (21) Application number: 02077163.0
- (22) Date of filing: 01.11.1995
- (84) Designated Contracting States: **DE GB IT**
- (30) Priority: 02.03.1995 US 399244
- (62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC: 00201349.8 / 1 018 436 95307796.3 / 0 729 844
- (71) Applicant: Hewlett-Packard Company Palo Alto, CA 94304 (US)

- (72) Inventors:
 - Christianson, John A.
 St. Helena, CA 94574 (US)
 - Kelley, Richard Alan Vancouver, WA 98686 (US)
 - Harmon, John Paul Albany, OR 97321 (US)
- (74) Representative: Jackson, Richard Eric et al Carpmaels & Ransford,
 43 Bloomsbury Square London WC1A 2RA (GB)

(54) Dual inkjet pen carriage system

(57)A dual pen carriage system (50) supports a pair of inkjet pens (60, 62) in an inkjet printing mechanism (20). A carriage body (75) defines a pair of pen chambers (80, 82), separated by a main alignment wall (76), for receiving the pens (60, 62). The main wall (76) defines at least one first direction alignment datum (180, 180', 182, 184; 180', 184, 186, 188) in each chamber (80, 82). A reference rod (190) extends through both chambers (80, 82) to define pen alignment datums in two orthogonal directions, which are orthogonal to the first direction. The body (75) supports an adjustment member (215) that selectively engages a rotational registration member (214) along the main wall (76) to simultaneously adjust the angular alignment of each pen chamber (80, 82). A latch mechanism (70, 72) coupled to the carriage body (75) applies, upon closing, a controlled force to a latching land (115, 155) on each pen (60, 62) to push the pens into contact with the datums (180, 180', 182, 184, 190, 196; 180', 184, 186, 188, 190, 198). A method is also provided for aligning a pair of inkjet pens (60, 62) in an inkjet printing mechanism (20).



EP 1 234 679 A3



EUROPEAN SEARCH REPORT

Application Number EP 02 07 7163

	DOCUMENTS CONSID	ERED TO BE RELEVA	NT	
Category	Citation of document with in of relevant pass	ndication, where appropriate, ages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
A	EP 0 622 234 A (HEW 2 November 1994 (19 * the whole documen		Y) 1	B41J25/34
D,A	US 4 907 J18 A (PIN 6 March 1990 (1990- * the whole documen	03-06)	1	
Α	US 5 212 502 A (BOW 18 May 1993 (1993-0 * claim 1; figures	5-18)	1	
				TECHNICAL FIELDS SEARCHED (Int.CI.7)
l	The present search report has b	peen drawn up for all claims		
	Place of search	Date of completion of the se-	arch	Examiner
	THE HAGUE	3 October 200)2 Joo	sting, T
X : parti Y : parti docu A : tech O : non-	ATEGORY OF CITED DOCUMENTS cularly relevant if taken alone cularly relevant if combined with another iment of the same category nological backgroundwritten disclosure mediate document	E : earliér pa after the f ner D : documen L : documen	t cited in the application t cited for other reasons of the same patent famil	ished on, or

EPO FORM 1503 03.82 (P04C01)

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

EP 02 07 7163

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.

03-10-2002

	Patent docume cited in search re		Publication date		Patent fan member(Publication date
EP	622234	A	02-11-1994	US DE DE EP JP US	5392063 69412532 69412532 0622234 6320830 5642143	D1 T2 A2 A	21-02-1995 24-09-1998 24-12-1998 02-11-1994 22-11-1994 24-06-1997
US	4907018	Α	06-03-1990	US	RE37671		
US	5212502	Α	18-05-1993	NONE	non anno elete elem delle telle anno cumo elem elem ele Elemente elemente e		
			e Official Journal of the f				