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(54) Fluid interconnect mechanism and method for an inkjet printer

(57) Disclosed is a printer having a set of permanent or semi-permanent inkjet printhead units (pens) (28-34) and a remote ink supply (20-26) connected to the pens by means of trailing tubes (44). A precision latching mechanism is provided to precisely position the pens in their respective stalls (76-82). The fluid interconnect device for the pens is designed so that it does not counteract the precision alignment provided by the pen and carriage datums. The carriage has a valve member (132-138) with a septum (148), and the valve is connected to the carriage in such a way that it can rock and otherwise move a preselected limited amount with respect to the carriage. The pens each have a needle (54) designed to pierce the septum. The needle is located inside a shroud (56) connected to the pen by a neck member (58). As the pen is inserted into the carriage, the neck member fits within a notch (100) in the carriage. The engagement of the neck member in the notch positions the shroud (56) over the valve. As the pen is further inserted into the carriage, the shroud contacts the valve to thereby position the septum below the needle. As the pen is further inserted, the needle pierces the septum to fluidically connect the pen to the ink supply in the printer. A latching mechanism firmly locks the pens into the carriage so that the pen datums are positioned against the carriage datums to precisely locate the pens in their stalls.

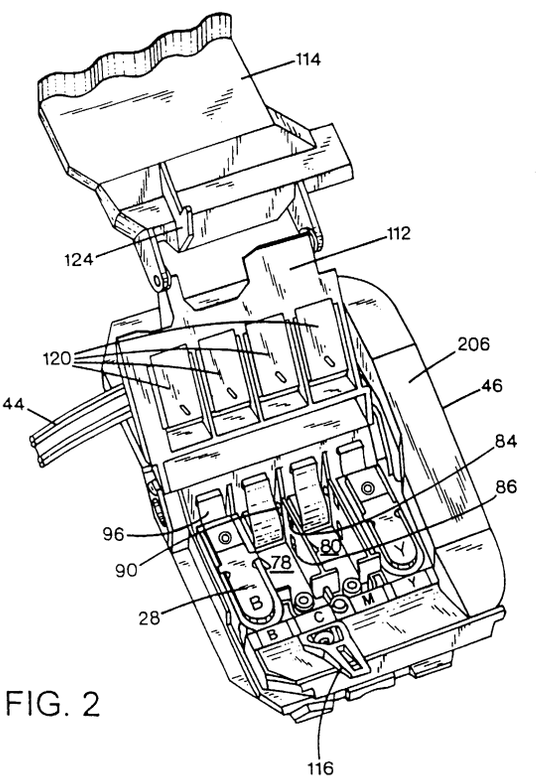

FIG. 2

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EUROPEAN SEARCH REPORT

Application Number
EP 98 30 4755

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
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			TECHNICAL FIELDS SEARCHED (Int.Cl.6) B41J

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	22 October 1999	Van den Meerschaut,G

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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22-10-1999

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