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EUROPEAN PATENT APPLICATION

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㉑ Int. Cl.⁴: **B 41 J 3/12, B 41 J 25/28**

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Bulletin 83/26

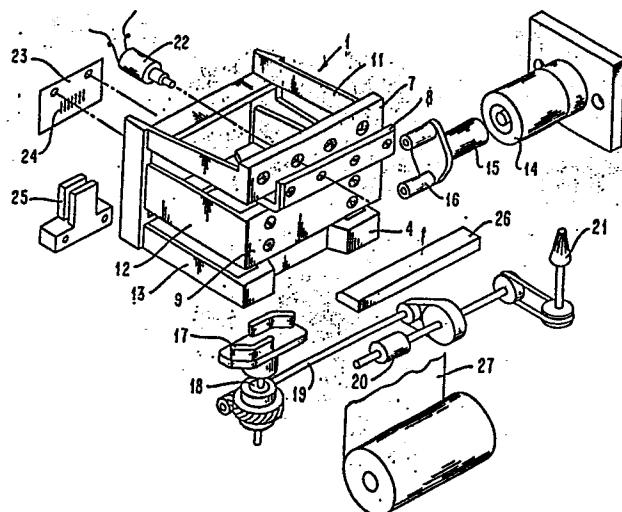
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㉗ Designated Contracting States: BE CH DE FR GB IT LI
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㉙ Compact shuttle printer mechanism.

㉚ The present dot printer comprises a suspension spring and frame element (1) constituted by two identical E-shaped plate spring elements (2, 3), having each a stile (10), and an upper (11), a central (12) and a lower (13) legs. A member (7) supporting the dot printing elements (22) is connected to the upper pair of legs (10) and positioned in front of and parallelly to a platen (26). The central pair of legs (11) are connected to a frame piece (9) which is rigidly affixed to the printer frame. The upper and lower pairs of legs (10, 12) are connected together through a bar (6). Both stiles (10) of both E-shaped elements (2, 3) are also connected together. Driving means (14, 15, 16) connected to the free ends of both the upper and lower pairs of legs (10, 12), imparts a reciprocating motion, thereto, with a substantial linear velocity, in a direction parallel to a print line. The linear velocity is obtained either through electronic or mechanical means.



EP 0 082 329 A3



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. 3) |
|---|--|--------------------------------|--|
| X | US - A - 4 306 497 (K. HAMADA) * Column 3, line 17 to column 4, line 59; figures 1-2 * | 1 | B 41 J 3/12 B 41 J 25/28 |
| A | ----- | 3 | |
| | | | TECHNICAL FIELDS SEARCHED (Int. Cl. 3) |
| | | | B 41 J |
| The present search report has been drawn up for all claims | | | |
| Place of search The Hague | Date of completion of the search 27-06-1984 | Examiner VAN DEN MEERSCHAUT | |
| CATEGORY OF CITED DOCUMENTS | | | |
| X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document | T : theory or principle underlying the invention 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 | | |



CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1-4, 9, 10: The construction of the printhead shuttle.
2. Claim 5: The voice coil driving assembly.
3. Claim 6: The paper drive means.
4. Claims 7-8: The gear and crank driving mechanism.

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims: 1-4, 9, 10