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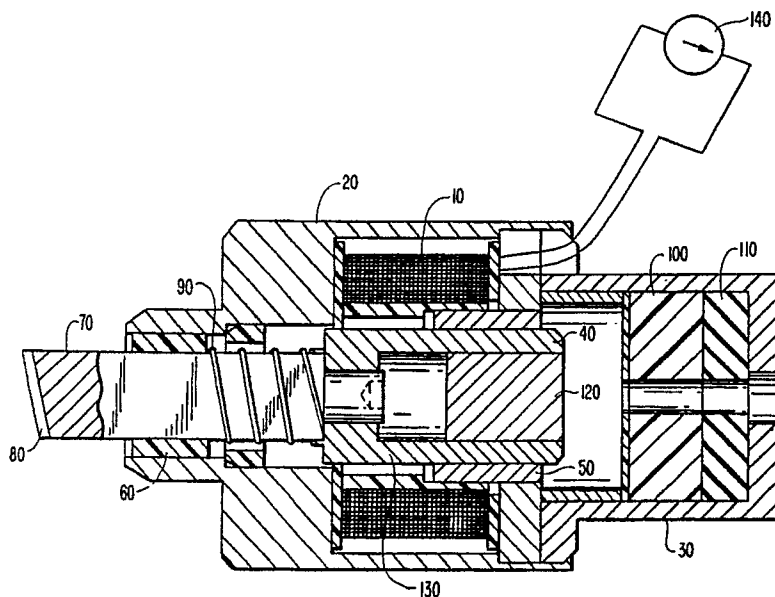
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NL-5656 AA Eindhoven(NL)(54) **Hammer solenoid.**

(57) A hammer solenoid for impact printers includes a hollow ferromagnetic plunger. A ferromagnetic flux booster is attached to the rear end of the plunger to enhance the characteristics of the solenoid by shifting the magnetic center of the plunger while, at the same time, providing a dead structure which mini-

mizes vibration and bounce. In an alternate embodiment, the plunger walls may include a permanent magnet which is polarized to be attracted by the solenoid coil.

**EP 0 406 957 A3**



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EUROPEAN SEARCH REPORT

Application Number

EP 90 20 1737

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)
Y,A	US-A-4 125 336 (WANG LABORATORIES) * column 4, line 60 - column 5, line 16 * -- -- --	1,2-5	H 01 F 7/16 B 41 J 2/285
Y,A	US-A-3 961 298 (THE SINGER COMPANY) * column 1, line 49 - column 2, line 53 * -- -- --	1,2-4	
A	US-A-4 468 142 (GENICOM CORPORATION) -- -- --		
A	DE-A-2 605 538 (HERMES PRECISA INTERNATIONAL S.A.) -- -- -- --		
The present search report has been drawn up for all claims			
Place of search		Date of completion of search	Examiner
The Hague		07 February 91	VANHULLE R.
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			