

Title (en)

Balanced print head drive mechanism.

Title (de)

Druckkopfantrieb mit Massenausgleich.

Title (fr)

Mécanisme d'entraînement équilibré pour tête d'impression.

Publication

EP 0109329 A2 19840523 (EN)

Application

EP 83402116 A 19831028

Priority

US 43892882 A 19821103

Abstract (en)

The shuttle print head of a matrix printer carries a plurality of printing elements and is supported by leaf springs on the printer frame. The print head is fixed to the movable core of a linear electric motor whose driving coil is also supported on the frame by leaf springs. The masses of the print head array and coil are made equal to form a balanced mass/spring system having a natural resonant frequency of oscillation of sinusoidal motion. The resonant frequency is chosen to correspond to a desired print rate. The drive coil is energized with alternating current at the resonant frequency in order to maintain the sinusoidal oscillation of the print head array at the required amplitude of oscillation. Selective energization of the printing elements effects selective printing of indicia at equal space column locations.

IPC 1-7

B41J 19/14; **B41J 3/12**; **B41J 19/30**

IPC 8 full level

B41J 2/245 (2006.01); **B41J 19/30** (2006.01); **B41J 25/00** (2006.01)

CPC (source: EP)

B41J 2/245 (2013.01); **B41J 19/305** (2013.01); **B41J 25/006** (2013.01)

Cited by

EP0581463A3; EP0580330A3; EP0169924A1; DE3433499A1; FR2553035A1; DE3433499C2

Designated contracting state (EPC)

BE DE FR GB IT SE

DOCDB simple family (publication)

EP 0109329 A2 19840523; **EP 0109329 A3 19860611**; WO 8401744 A1 19840510

DOCDB simple family (application)

EP 83402116 A 19831028; US 8301684 W 19831031