Title (en)
   SOLENOID PUMP DRIVER

Title (de)
   MAGNETPUMPENANTRIEB

Title (fr)
   DISPOSITIF DE COMMANDE DE POMPE À SOLÉNOÏDE

Publication
   EP 3368769 B1 20210804 (EN)

Application
   EP 16791063 A 20161031

Priority
   • GB 201519246 A 20151030
   • GB 2016053371 W 20161031

Abstract (en)
   [origin: WO2017072532A1] Method of driving a solenoid pump of the type comprising a metal shuttle (4) urged by a solenoid (5) against a spring (3), wherein the spring provides the force for the pumping stroke of the shuttle, the method comprising: applying a periodic driving voltage to the solenoid, each period of the driving voltage comprising a first portion during which the driving voltage increases from a minimum voltage to a maximum voltage to compress the spring, a second portion during which the driving voltage decreases from the maximum voltage to the minimum voltage to release the spring, and a third portion during which the driving voltage is maintained at the minimum voltage; wherein the duration of the second portion is substantially less than the duration of the first portion and may be substantially instantaneous. The driving voltage increases from the minimum voltage to the maximum voltage substantially linearly during the first portion, such that the driving voltage has a sawtooth waveform.

IPC 8 full level
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   • JP S5929780 A 19840217 - YAMATAKE HONEYWELL CO LTD
   • JP S59211775 A 19841130 - SHIZUOKA SEIKI CO LTD

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