

Title (en)

Electric arc treatment of parts.

Title (de)

Elektrische Lichtbogenbehandlung von Teilchen.

Title (fr)

Traitement d'arc électrique de particules.

Publication

**EP 0468110 A1 19920129 (EN)**

Application

**EP 90308105 A 19900724**

Priority

EP 90308105 A 19900724

Abstract (en)

A part being treated, e.g. cleaned, and one or more electrodes are connected to a power supply and an arc discharge is initiated at a pressure below 10 Pa between the part and the electrode(s) in the mode of a drooping portion of the voltage-ampere characteristic of the arc or using a power supply charging a drooping external volt-ampere characteristic. In one procedure, during arcing, a difference of potentials of electric field approximately equal to zero is created on the treatment zone of the part and/or on the working surface of the electrode(s) and the area of movement of the arc plasma is limited to the said zone and/or the said working surface. In another procedure, a difference of potentials other than zero is created, areas with the highest and/or lowest potential being moved along the treatment zone and/or working surface, and the area of movement of the arc plasma being limited to the treatment zone and/or working surface. In another procedure the region of the arc discharge in the space between the part and the electrode(s) is positively compressed or partly restricted, and the said region and the part are moved relative to each other according to a predetermined program. <IMAGE>

IPC 1-7

**B08B 7/00**; **H05H 1/48**

IPC 8 full level

**B08B 7/00** (2006.01); **H05H 1/48** (2006.01)

CPC (source: EP US)

**H05H 1/48** (2013.01 - EP US)

Citation (search report)

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- PATENT ABSTRACTS OF JAPAN vol. 13, no. 532 (C-659)(3880) 28 novembre 1989, & JP-A-1 218626 (HITACHI LTD) 31 août 1989,
- BRITISH JOURNAL OF APPLIED PHYSICS vol. 4, no. 8, août 1971, LETCHWORTH GB pages 25 - 27; R.\_REEVES-SAUNDERS: "OBSERVATION OF A TRANSITION INTO A STABLE MODE FOR AN ARC BURNING ON A ROTATING ANODE"

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