Title (en)

METHOD OF MONITORING THE WEAR OF AT LEAST ONE OF THE ELECTRODES OF A PLASMA TORCH

Title (de)

VERFAHREN ZUR ÜBERWACHUNG DER ABNUTZUNG MINDESTENS EINER DER ELEKTRODEN EINES PLASMABRENNERS

Title (fr)

PROCÉDÉ DE CONTRÔLE DE L'USURE D'AU MOINS UNE DES ÉLECTRODES D'UNE TORCHE À PLASMA

Publication

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Application

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Abstract (en)

[origin: WO2010070051A1] The invention relates to a method of monitoring the wear of at least one of the electrodes (1, 2) of a plasma torch comprising two electrodes (1, 2) having the same principal axis, these electrodes (1, 2) being separated by a chamber (3) for receiving a plasma gas, and at least one means for generating a magnetic field (7) placed locally to said at least one electrode, the purpose of which is to monitor the wear, in which the arc root is swept over a portion of the surface of the electrode starting from an initial position up to the point where said arc root reaches a defined final position on said portion, the longitudinal progression of said arc root being determined by a function dependent on at least time, function f(t), which is fixed. According to the invention, at least the electrical energy consumed by said torch is measured as a function of time from the commissioning of said electrode (1, 2), said measurements are recorded in a storage unit and, based on the temporal variation in at least said consumed electrical energy on at least some of said measurements, a variable ?(t) for adjusting the function f(t) determined over a time period T determined by the state of wear of said electrode (1, 2).

IPC 8 full level

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