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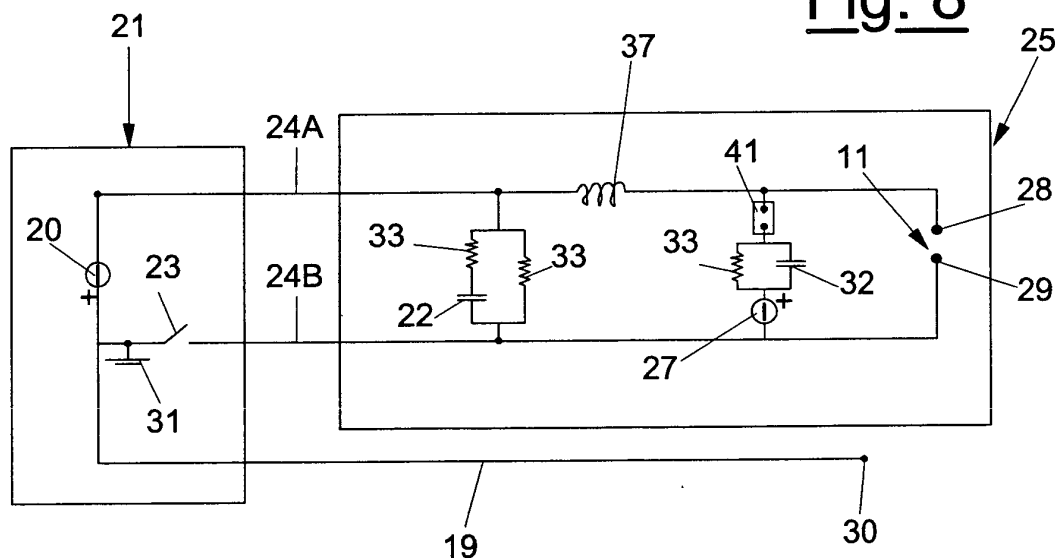
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(54) **Striking circuit of the pilot arc for plasma arc torches**

(57) A striking circuit of the pilot arc for plasma arc torches (25), comprising a low power impulse generator (27), suitable for striking the pilot arc between the cathode (28) and auxiliary anode (29), which is positioned inside the torch body (25) and kept separate from the direct current generator (20), which feeds both the pilot arc and the main arc, until the arc has been permanently struck; the separation of the part of the circuit in which the low power impulses are present is obtained by using an insulated inductor (37), with a ferrite separation nucleus

between the feeder (21) and the torch body (25), and a discharger (41), situated in series with the impulse generator (27), associated with an oscillator and an amplifier, so as to obtain, between the high voltage outlet of the impulse generator (27) and the earth (31), high voltage impulses, having a frequency of about 250 kHz. The electromagnetic emissions are thus reduced during the functioning of the torch (25) and the whole system is more compact, reliable and functional, with respect to the known art.

Fig. 8





European Patent
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EUROPEAN SEARCH REPORT

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 29 June 2006	Examiner Capostagno, E
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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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