



(51) International Patent Classification:

B23K 9/18 (2006.01) **B23K 9/073** (2006.01)
B23K 9/067 (2006.01)

(21) International Application Number:

PCT/EP2012/071685

(22) International Filing Date:

2 November 2012 (02.11.2012)

(25) Filing Language:

English

(26) Publication Language:

English

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(81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) **Title:** METHOD FOR STARTING A SUBMERGED ARC WELDING PROCESS AND WELDING APPARATUS

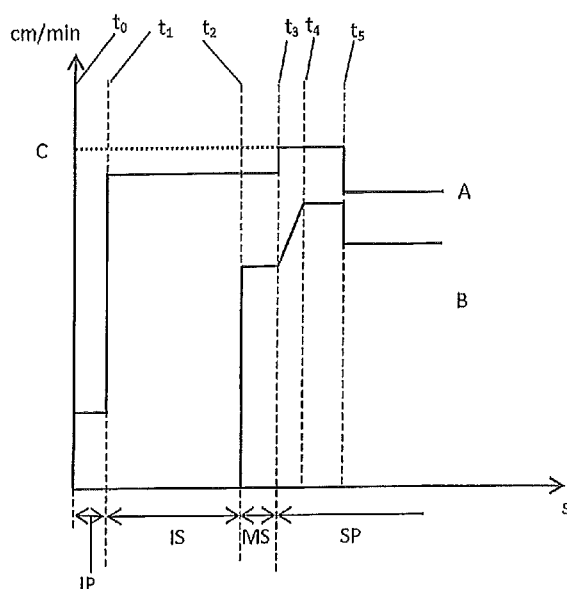


Fig. 7a

(57) **Abstract:** A method comprising an arc ignition phase (IP), an arc-stabilizing phase (AP) and a stable arc phase (SP). The arc stabilizing phase comprises an initial sub-phase (IS) comprising the step of feeding at least one hot wire (4, 12) at constant feed speed and a main sub-phase (MS) comprising the steps of feeding said hot wire at constant feed speed and feeding at least one cold wire (22) at constant feed speed. The stable arc phase comprises the steps of continuously adjusting the feed speed of the hot wire and continuously adjusting the feed speed of the cold wire. The invention also relates to a welding apparatus (1) for carrying out the method. The welding apparatus comprises a hot wire feeding means (150), a contact means (2), a cold wire feeding means (35) and a control unit (31). The control unit is adapted to control said hot wire feeding means to feed the hot wire at a constant feed speed during the initial sub-phase, feed the hot wire at a constant feed speed during the main sub-phase and to continuously during the stable arc phase adjust the feed speed of the hot wire. The control unit is adapted to control said cold wire feeding means to feed the cold wire at a constant feed speed during the main sub-phase and continuously during the stable arc phase adjust the cold wire feed speed.