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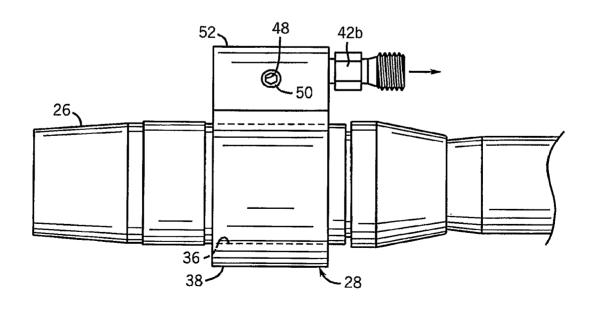
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(54) Title: REMOVABLE NOZZLE-COOLING COLLAR ATTACHABLE TO THE OUTER SURFACE OD A WELDING TORCH NOZZLE WITH A CHAMBER FOR CIRCULATED COOLING FLUID THEREIN AND SECURING MECHANISM



(57) Abstract: A removable cooling collar (28) is provided for cooling the nozzle (26) of a welding torch. This collar (28) includes first and second parts (36, 38) in fluid communication with a chamber that extends circumferentially within a hollow structure. Cooling fluid circulating through the chamber facilitates dissipation and/or extraction of heat in the nozzle (26), in turn reducing the likelihood of weld splatter adhesion on the nozzle (26).

INTERNATIONAL SEARCH REPORT

International application No PCT/US2007/006498

A. CLASSIFICATION OF SUBJECT MATTER
INV. B23K9/28 B23K9/32 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) $B23K \quad H05H \quad F23D$ Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. χ US 3 803 381 A (BERNARDA. ET AL) 1-8. 9 April 1974 (1974-04-09) 10-12. 16,18-20 column 6, line 28; figures 1,2,4-6 Υ 13 - 15US 3 083 289 A (W.D. MUNRO ET AL) X 1 - 5.1026 March 1963 (1963-03-26) column 2, line 38 - column 3, line 12; Υ 13 - 15figure 2 US 3 496 328 A (D.A. MOERKE) χ 1-3 17 February 1970 (1970-02-17) Α column 6, line 30 - column 7, line 2; 4,5,11, figures 1,3 18 -/-χ X I Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled in the art. other means "P" document published prior to the international filing date but later than the priority date claimed *&* document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 12/09/2007 5 September 2007 Name and mailing address of the ISA/ Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016 Jeggy, Thierry

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