

Title (en)
AUTOMATIC WELDING DEVICE USING RADIATION HEAT SOURCE FOR MANUFACTURING CUTTING TOOL AND AUTOMATIC WELDING METHOD THEREOF

Title (de)
EINE STRAHLUNGSWÄRMEQUELLE ZUR HERSTELLUNG VON SCHNEIDWERKZEUGEN VERWENDENDE AUTOMATISCHE SCHWEISSVORRICHTUNG UND AUTOMATISCHES SCHWEISSVERFAHREN DAFÜR

Title (fr)
DISPOSITIF DE SOUDAGE AUTOMATIQUE FAISANT APPEL A UNE SOURCE DE CHALEUR RAYONNANTE POUR FABRIQUER UN OUTIL DE COUPE, ET PROCEDE DE SOUDAGE AUTOMATIQUE ASSOCIE

Publication
EP 1487606 A4 20080402 (EN)

Application
EP 02708815 A 20020328

Priority
KR 0200547 W 20020328

Abstract (en)
[origin: WO03082513A1] The present invention discloses an apparatus for fabricating cutting tools and wear-resistant components by automatically welding a blank to a shank. The automatic welding apparatus comprises: a rotating axis disposed in the center of a main body; a plurality of working spaces sequentially arranged in the circular direction, divided by isolation walls formed radially around the rotating axis; a tool shelf detachably connected to the lower portion of the rotating axis, sequentially passing through the working spaces while rotating around the rotating axis according to the circular direction, and having tools on its upper surface; and a radiation heat source formed on one upper portion of the working spaces, and for providing a instant temperature rise on the cutting tools. Accordingly, the present invention provides an automatic welding apparatus and an automatic welding method for fabricating cutting tools, characterized in that cutting tools disposed on the tool shelf are automatically welded by radiant heat generated from the radiation heat source while sequentially passing each working space by the rotation of the rotating axis.

IPC 8 full level
B23K 37/00 (2006.01); **B23C 5/10** (2006.01); **B23K 1/00** (2006.01); **B23K 26/00** (2006.01); **B23K 26/08** (2006.01); **B23K 26/12** (2006.01);
B23K 26/32 (2006.01); **B23K 28/00** (2006.01); **B23K 31/02** (2006.01); **B23P 15/28** (2006.01); **F27B 9/02** (2006.01); **F27B 9/16** (2006.01);
B23K 101/20 (2006.01)

CPC (source: EP)
B23K 1/0008 (2013.01); **B23K 28/003** (2013.01); **B23K 31/025** (2013.01); **F27B 9/028** (2013.01); **F27B 9/16** (2013.01); **F27B 9/36** (2013.01);
F27D 99/0006 (2013.01); **B23B 2226/31** (2013.01); **B23B 2240/08** (2013.01); **B23B 2240/16** (2013.01); **B23K 2101/20** (2018.07);
F27D 2099/0026 (2013.01)

Citation (search report)
• [Y] WO 0025975 A1 20000511 - PRECISION DIAMOND CO LTD [KR], et al
• [Y] DE 4005956 C1 19910606
• [A] DE 19928990 A1 20010104 - SIEMENS AG [DE]
• [A] FR 2617953 A2 19890113 - INNOVATIQUE SA [FR], et al
• See references of WO 03082513A1

Designated contracting state (EPC)
DE GB

DOCDB simple family (publication)
WO 03082513 A1 20031009; AU 2002243073 A1 20031013; EP 1487606 A1 20041222; EP 1487606 A4 20080402; JP 2005519768 A 20050707

DOCDB simple family (application)
KR 0200547 W 20020328; AU 2002243073 A 20020328; EP 02708815 A 20020328; JP 2003580027 A 20020328