

(19)



(11)

**EP 1 483 418 B8**

(12)

**CORRECTED EUROPEAN PATENT SPECIFICATION**

(15) Correction information:

**Corrected version no 1 (W1 B1)**  
**Corrections, see**  
**Bibliography INID code(s) 73**

(51) Int Cl.:

**C21D 10/00** (2006.01) **B21D 11/20** (2006.01)  
**B23K 26/18** (2006.01)

(48) Corrigendum issued on:

**05.12.2012 Bulletin 2012/49**

(86) International application number:

**PCT/US2003/007410**

(45) Date of publication and mention of the grant of the patent:

**08.08.2012 Bulletin 2012/32**

(87) International publication number:

**WO 2003/078669 (25.09.2003 Gazette 2003/39)**

(21) Application number: **03714066.2**

(22) Date of filing: **11.03.2003**

**(54) PRE-LOADING OF COMPONENTS DURING LASER PEENFORMING**

VORSPANNEN VON WERKSTÜCKEN WÄHREND IHRER FORMGEBUNG DURCH LASERSCHOCKSTRAHLEN

PRECONTRAINTÉ DE COMPOSANTS DURANT LE FORMAGE PAR ECROUISSAGE AU LASER

(84) Designated Contracting States:

**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR**

• **HARRIS, Fritz, B.**

**Rocklin, CA 95677 (US)**

(30) Priority: **11.03.2002 US 95822**

(74) Representative: **Richards, John et al**

**Ladas & Parry LLP**  
**Dachauerstrasse 37**  
**80335 München (DE)**

(43) Date of publication of application:

**08.12.2004 Bulletin 2004/50**

(56) References cited:

**WO-A-01/05549 US-A- 3 705 511**  
**US-A- 5 072 606 US-A- 5 531 570**  
**US-A- 5 742 028 US-A1- 2002 096 504**  
**US-B1- 6 198 069**

(73) Proprietor: **Lawrence Livermore National Security, LLC**

**Livermore, CA 94550 (US)**

(72) Inventors:

- **HACKEL, Lloyd, A.**  
**Livermore, CA 94550 (US)**
- **HALPIN, John, M.**  
**Tracy, CA 95376 (US)**

- **PATENT ABSTRACTS OF JAPAN vol. 014, no. 110 (M-0943), 28 February 1990 (1990-02-28) & JP 01 313113 A (FUJITSU LTD), 18 December 1989 (1989-12-18)**

**EP 1 483 418 B8**

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).