

12

**EUROPEAN PATENT APPLICATION**

21 Application number: **86630172.4**

51 Int. Cl.4: **C22C 19/05**

22 Date of filing: **20.11.86**

30 Priority: **26.11.85 US 801982**

43 Date of publication of application:  
**10.06.87 Bulletin 87/24**

84 Designated Contracting States:  
**BE CH DE FR GB IT LI SE**

68 Date of deferred publication of the search report:  
**18.01.89 Bulletin 89/03**

71 Applicant: **UNITED TECHNOLOGIES CORPORATION**  
**United Technologies Building 1, Financial Plaza**  
**Hartford, CT 06101(US)**

72 Inventor: **Flynn, John Edward**  
**Isinglass Hill Road**  
**Portland Connecticut 06480(US)**  
Inventor: **Arnold, Mathew J.**  
**18 Norwegian Wood**  
**Tolland Connecticut 06084(US)**

74 Representative: **Schmitz, Jean-Marie et al**  
**OFFICE DENNEMEYER S.à.r.l. P.O. Box 1502**  
**L-1015 Luxembourg(LU)**

54 **Weldable cast nickel base superalloy.**

57 The weldability of Inconel 718 material is enhanced by careful control of silicon, columbium and carbon levels. Minimization of the sulfur, phosphorous and boron levels is also a part of the invention it serves to further minimize the microcracking in the heat affected zone which would otherwise be observed.

**FIG. 1**



**1000X**

**EP 0 225 270 A3**



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
A,D	US-A-3 046 108 (EISELSTEIN) * Claims 1-9 *	1	C 22 C 19/05
	---		
A	GB-A-2 023 652 (WESTINGHOUSE ELECTRIC CORP.) * Whole document *	1	
	---		
A	CHEMICAL ABSTRACTS, vol. 74, no. 4, 25th January 1971, page 155, no. 15412n, Columbus, Ohio, US; M. OKADA: "Effect of alloy components on crack formation during the welding of a nickel-based heat-resistant alloy", & AVTOMAT. SVARKA 1970, 23(6), 7-13 * Abstract *	1	
	-----		
			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
			C 22 C 19/05
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 24-10-1988	Examiner LIPPENS M.H.
<b>CATEGORY OF CITED DOCUMENTS</b> 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			