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(21) International Application Number: PCT/US99/16271 (22) International Filing Date: 26 July 1999 (26.07.99) (30) Priority Data: 09/153,477 15 September 1998 (15.09.98) US (71) Applicant: CHROMALLOY GAS TURBINE CORPORATION [US/US]; 4430 Director Drive, San Antonio, TX 78219 (US). (72) Inventors: FOSTER, M.; 915 Crain Street, Carson City, NV 89703 (US). UPDEGROVE, K.; 2555 Fermi Road, Carson City, NV 89706 (US). THURSTON, C.; 939 Ranchview Circle, Carson City, NV 89705 (US). LOVELACE, D.; 7075 Shulz Way, Carson City, NV 89701 (US). (74) Agent: BITTMAN, M.; Sequa Corporation, 3 University Plaza, Hackensack, NJ 07601 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: LASER WELDING SUPERALLOY ARTICLES (57) Abstract A process is provided for laser welding a nickel or cobalt based superalloy article to minimize cracking by preheating the entire weld area to a ductile temperature, maintaining such temperature during welding and solidification of the weld, with the welding utilizing a powder alloy feed and the speed of the laser controlled to less than 10 inches per minute.		