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U.S. DEPARTMENT OF COMMERCE nt and Trademark Office

| 1.30) | Patent and Trademark Office | | |
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| To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. | | | |
| 1. Name of conveying party(ies): Hisanori OKAMURA Kouichi WATANABE Masahiko SAKAMOTO Akihiro SATO Kinya AOTA Masakuni EZUMI Isao FUNYU Yasuo ISHIMARU Additional name(s) of conveying party(ies) attached? Yes No 3. Nature of conveyance: Assignment Merger Security Agreement Change of Name | 2. Name and address of receiving party(ies): Name: Hitachi, Ltd. Internal Address: Street Address: 6, Kanda Surugadai 4-chome, Chiyoda-ku City: Tokyo Country: Japan Zip: | | |
| Other Execution Date: April 3, 2000 | Additional name(s) & address(es) attached? Yes X No | | |
| 4. Application number(s) or patent number(s): If this document is being filed together with a new application A. Patent Application No.(s) Serial No.: 09/512,472 Filed: February 24, 2000 | , the execution date of the application is: B. Patent No.(s) | | |
| Additional numbers attached? Yes No | | | |
| 5. Name and address of party to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents involved: | | |
| Name: ANTONELLI, TERRY, STOUT & KRAUS, LLP Internal Address: | 7. Total fee (37 CFR 3.41) \$40.00 X Enclosed Any deficiencies may be charged to deposit account Authorized to be charged to deposit account | | |
| Street Address: 1300 North Seventeenth Street Suite 1800 City: Arlington, State: VA Zip: 22209 | 8. Deposit account number: 01-2135 (Attach duplicate copy of this page if paying by deposit account) | | |
| 1/03/2000 JJALLAN2 00000049 012135 09512472 DO NOT USE THIS SPACE 1 FC:581 40.00 CH | | | |
| 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. William I. Solomon Name of Person Signing Attorney Registration No. 28,565 Total number of pages including cover sheet, attachments, and document: 2 OMB No. 0651-0011 (exp. 4/94) | | | |
| OMB No. 0651-0011 (exp. 4/94) | | | |

PATENT

REEL: 010959 FRAME: 0914

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ASSIGNMENT

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by HITACHI, LTD., a corporation organized under the laws of Japan, located at 6, Kanda Surugadai 4-chome, Chiyodaku, Tokyo, Japan, receipt of which is hereby acknowledged I do hereby sell and assign to said HITACHI, LTD., its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

FRICTION STIR WELDING APPARATUS AND METHOD

*U.S. Serial No. 09/512,472 filed onFebruary 24, 2000

invented by me— (if only one is named below) or us— (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted, to be held and enjoyed by said HITACHI, LTD., its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made:

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said HITACHI, LTD.

Signed on the date(s) indicated aside signatures:

RECORDED: 07/03/2000

| | HAVENTOR(S) | Date Signed |
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PATENT REEL: 010959 FRAME: 0915