

04-11-2003



PATENT

IN THE U.

102416561

ASSIGNMENT BRANCH

RADEMARK OFFICE

Watts, Hoffmann, Fisher & Heinke Co., L.P.A.

PO Box 99839

Cleveland, Ohio 44199-0839

Telephone: (216) 241-6700

Docket No.: 13-664, 13-913, 13-917,

13-988C1, 13-989, 14-308

4-4-03

Commissioner of Patents and Trademarks
Washington, D. C. 20231

Dear Sir:

Please record the attached original document(s) or copy thereof as follows:

Conveying Party: LTV Steel Company, Inc.

Receiving Party: International Steel Group Inc., a Delaware corporation

Address: 3250 Interstate Drive

Richfield, OH 44286

Nature of Conveyance: Assignment

Date of Execution: effective date April 12, 2002

Please record against:

Patent No(s): 5,584,909, issued 12/17/96; 5,798,001, issued 08/25/98;

~~5,885,328~~, issued 03/23/99; 5,865,876, issued 02/02/99

5,830,259 issued 11/03/98; 6,231,686 issued 05/15/01

Application No(s): N/A

No. of Patent(s): 6 No. of Application(s): 0

Please charge deposit Account No. 23-0630 in the sum of \$240.00 for the recordal fees. Please charge any additional fees, or credit any overpayment, to deposit account 23-0630.

To my best knowledge and belief, the foregoing information is true and correct. Please correspond with Watts, Hoffmann, Fisher & Heinke at the above address.

04/10/2003 ECOOPER 00000329 230630 5584909

01 FC:0021 240.00 CH

Date

4/4/03

Respectfully submitted,

Paul A. Serbinowski

Registration No. 34,429

FINANCE SECTION

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OFFICE OF PUBLIC RECORDS

PATENT

REEL: 013922 FRAME: 0926

PATENT ASSIGNMENT

THIS PATENT ASSIGNMENT ("Assignment") is made and entered into this 13 day of April, 2002 (the "Effective Date"), by and among LTV Steel Company, Inc., a New Jersey corporation ("Assignor") and International Steel Group Inc., a Delaware corporation ("Assignee").

BACKGROUND INFORMATION

A. Assignor and Assignee are parties to that certain Asset Purchase Agreement, dated as of February 26, 2002 (the "Asset Purchase Agreement") by and among Assignor, River Terminal Railway Company, Chicago Short Line Railway Company, The Cuyahoga Valley Railway Company, The LTV Corporation, LTV Electro-Galvanizing, Inc. and Assignee, pursuant to which Assignor has agreed to sell and Assignee has agreed to purchase certain Acquired Assets (as defined in the Asset Purchase Agreement), on the terms and conditions set forth in the Asset Purchase Agreement, including certain patents and patent applications identified on Schedule A hereof (the "Patents")

B. Pursuant to the Asset Purchase Agreement, Assignor's right, title and interest in and to each of these Patents is to be assigned to Assignee.

ASSIGNMENT

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor does hereby irrevocably and unconditionally sell, assign, transfer and set over to Assignee, all of Assignor's right, title and interest in and to the Patents, and to all inventions described and claimed in the patents, including the exclusive right to 1) all continuations, divisions, continuations-in-part, reissues, reexaminations, extensions or foreign equivalents thereof, and including the subject matter of all claims which may be obtained therefrom; 2) claim priority to the patents; 3) all Letters Patent which may be granted on any of the foregoing, and all renewals, reissues, and extensions thereof; 4) all applications for Letters Patent which may hereafter be filed for improvements of all inventions described and claimed in the patents in the United States and in any country or countries foreign to the United States, and all Letters Patent which may be granted on such applications for the improvements in the United States and in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and 5) bring actions and collect damages for infringement of the Patents, including infringement having occurred prior to the date of the Asset Purchase Agreement, (collectively "Assignor's Interests") for its own use and enjoyment, and for the use and enjoyment of its successors, assigns or other legal representatives, as fully and entirely as the same would have been held and enjoyed by Assignor if this Assignment had not been made; together with all income, royalties, damages or payments due or payable as of the Effective Date or thereafter based on Assignor's Interests, including, without limitation, claims for damages by reason of future infringement or other unauthorized use of the Patents, with the right to sue for, and collect the same.

I hereby certify that this is a true and accurate copy of the Patent Assignment between LTV Steel Company, Inc. and International Steel Group Inc. effective 12 April 2002.

Assignor hereby authorizes and requests the Commissioner for Patents of the United States Patent and Trademark Office ("USPTO"), and any Official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent related to the Patents to the Assignee, its successors, legal representatives and assigns, in accordance with the terms of this Patent Assignment and the Asset Purchase Agreement.

Assignor hereby authorizes and requests the Commissioner for Patents of the USPTO (or its foreign equivalent) to record Assignee as the successor in ownership to Assignor's interests in the Patents, including any continuations, divisions, continuations-in-part, reissues, reexaminations or extensions thereof, and to issue any and all letters patent of the United States and foreign equivalents thereto.

Assignor shall provide Assignee, its successors, assigns or other legal representatives, cooperation and assistance at Assignee's request and expense (including the execution and delivery of any and all affidavits, declarations, oaths, exhibits, assignments, powers of attorney or other documentation) as may be reasonably required in the implementation or perfection of this Assignment.

If Assignee is unable for any reason whatsoever to secure Assignor's signature, or the signature of any of Assignor's employees, members, principals or agents, to any document necessary to secure, record, enforce and/or maintain Assignee's rights with regard to the Patents, Assignor hereby irrevocably designates and appoints Assignee and its duly authorized officers and agents, as Assignor's agents and attorneys-in-fact with full power of substitution to act for and on its behalf and instead of Assignor, to execute and file any such document or documents and to do all other lawfully permitted acts to further the purposes of the foregoing with the same legal force and effect as if executed by or on behalf of Assignor. Assignor shall not itself challenge or assist any third party in challenging any Patent as being unpatentable, invalid, unenforceable and/or not infringed.

* * * * *

IN WITNESS WHEREOF, Assignor and Assignee have caused this Assignment to be signed and executed on the Effective Date.

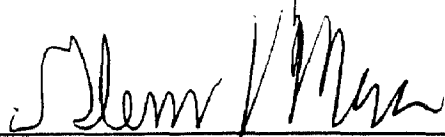
ASSIGNOR:

ASSIGNEE:

LTV STEEL COMPANY, INC.

INTERNATIONAL STEEL GROUP INC.

By:



Name: Glenn J. Moran
Title: CEO

By:



Name: Rodney Mott
Title: President and CEO

SCHEDULE A

Patents

Country	Patent Title	Patent No.	Patent Date	Assignee(s)
US	Continuous Casting Apparatus and Method	5,137,075	8/11/92	LTV Steel Company, Inc.
US	Method and Apparatus for Slag-Free Casting	5,203,909	4/20/93	LTV Steel Company, Inc.
US	Method of Making High Nitrogen Content Steel	5,417,739	5/23/95	LTV Steel Company, Inc.
US	Method of Making Ultra-Low Carbon and Sulfur Steel	5,472,479	12/5/95	LTV Steel Company, Inc.
US	Electric Arc Furnace Electrode Consumption Analyzer	5,539,768	7/23/96	LTV Steel Company, Inc.
US	Controlled Foamy Slag Process	5,584,909	12/17/96	LTV Steel Company, Inc.
US	Process of Making Electrical Steels [Patent reissued 11/24/98; see RE 35,967, Dkt. No. 92.17A-CIP-Re]	5,609,696	3/11/97	LTV Steel Company, Inc.
US	Electrical Steel With Improved Magnetic Properties in the Rolling Direction	5,798,001	8/25/98	LTV Steel Company, Inc.
US	Preventing Skull Accumulation on a Steelmaking Lance	5,830,259	11/3/98	LTV Steel Company, Inc.
US	Process of Making Electrical Steels (re-issue of U.S. PN 5,609,696 issued 3/11/97 [Dkt. No. 92.17A-CIP])	RE 35,967	11/24/98	LTV Steel Company, Inc.
US	Multipurpose Lance	5,865,876	2/2/99	LTV Steel Company, Inc. Berry Metal Company
US	Foamy Slag Process Using Multi-Circuit Lance	5,885,323	3/23/99	LTV Steel Company, Inc.
US	Method of Agglomerating Oil-Containing Steel Mill Waste	5,885,328	3/23/99	LTV Steel Company, Inc.
US	Basic Oxygen Process with Iron Oxide Pellet Addition	5,897,684	4/27/99	LTV Steel Company, Inc.
US	Submerged Entry Nozzle	6,016,941	1/25/00	LTV Steel Company, Inc.
US	Process of Making Electrical Steels Having Good Cleanliness and Magnetic Properties	6,068,708	5/30/00	LTV Steel Company, Inc.
US	Treatment of Steel Mill Waste Metal Oxides	6,120,577	9/19/00	LTV Steel Company, Inc. Maumee Research & Engineering USX Corporation
US	Water Driven Roller For Hot Strip Mill Sideguides	6,158,572	12/12/00	LTV Steel Company, Inc.
US	Process of Making Electrical Steels	6,217,673	4/17/01	LTV Steel Company, Inc.
US	Steel With Electrically Insulating Hematite Layer	6,221,501	4/24/01	LTV Steel Company, Inc.
US	Formability of Metal Having a Zinc Layer	6,231,686	5/15/01	LTV Steel Company, Inc.
US	Preventing Air Aspiration In Slide Gate Plate Throttling Mechanisms	6,250,521	6/26/01	LTV Steel Company, Inc.

SCHEDULE A

Patents

US	Electrical Steel With Improved Magnetic Properties In The Rolling Direction	6,231,685	5/15/01	LTV Steel Company, Inc.
US	Steel With Electrically Insulating Hematite Layer	6,284,388	9/4/01	LTV Steel Company, Inc.
AUS	Controlled Foamy Slag Process	691647	10/3/95	LTV Steel Company, Inc.
AUS	Basic Oxygen Process With Iron Oxide Pellet Addition	727872	4/19/01	LTV Steel Company, Inc.
AUS	Preventing Skull Accumulation On A Steelmaking Lance	730594	2/26/97	LTV Steel Company, Inc.
Brazil	Controlled Foamy Slag Process	PI9504567-8	10/17/00	LTV Steel Company, Inc.
EPO	Process of Making Electrical Steels	0684320	6/21/00	LTV Steel Company, Inc.
EPO	Method of Making High Nitrogen Content Steel	EP 0 663 449	3/21/01	LTV Steel Company, Inc.
MX	Method and Apparatus for Slag-Free Casting	189,400	7/17/98	LTV Steel Company, Inc.
MX	Process of Making Electrical Steels	202743	7/2/01	LTV Steel Company, Inc.

SCHEDULE A

Patent Applications

Country	Title	Application No.	Filing Date	Assignee
US	Electrical Steel With Improved Magnetic Properties in the Rolling Direction	09/654,312 (94.7A-DIV)	9/1/00	LTV Steel Company, Inc.
US	High Strength Low Alloy Hot Rolled Steel	09/767,450 (2000.10A)	1/22/01	LTV Steel Company, Inc.
Argentina	Steel With Electrically Insulating Hematite Layer	P00 01 04241	8/16/00	LTV Steel Company, Inc.
Brazil	Electrical Steel With Improved Magnetic Properties in the Rolling Direction	PCT/US99/12331	6/3/99	LTV Steel Company, Inc.
Brazil	Preventing Skull Accumulation on a Steelmaking Lance	PI9701471-0	3/25/97	LTV Steel Company, Inc.
Brazil	Basic oxygen Process with Iron Oxide Pellet Addition	9800833-1	3/5/98	LTV Steel Company, Inc.
Brazil	Foamy Slag Process Using Multi-Circuit Lance	PI9800794-7	4/25/97	LTV Steel Company, Inc.
CA	Process of Making Electrical Steels	2,147,335	4/19/95	LTV Steel Company, Inc.
CA	Method of Making High Nitrogen Content Steel	2,137,102	12/1/94	LTV Steel Company, Inc.
CA	Electrical Steel with Improved Magnetic Properties in the Rolling Direction	2,334,899 PCT/US99/12331	6/3/99	LTV Steel Company, Inc.
CA	Method of Agglomerating Oil-Containing Steel Mill Waste	2,255,956 PCT/US97/00876	5/23/97	LTV Steel Company, Inc.
CA	Controlled Foamy Slag Process	2,159,231	9/27/95	LTV Steel Company, Inc.
CA	Preventing Skull Accumulation on a Steelmaking Lance	2,208,470	6/23/97	LTV Steel Company, Inc.
CA	Multipurpose Lance	2,252,637 PCT/US97/07102	4/29/97	LTV Steel Company, Inc. Berry Metal Company
CA	Basic Oxygen Process with Iron Oxide Pellet Addition	2,225,291	1/29/98	LTV Steel Company, Inc.
CA	Foamy Slag Process Using Multi-Circuit Lance	2,224,039	12/8/97	LTV Steel Company, Inc.
CA	Process for Making Electrical Steels Having Good Cleanliness and Magnetic Properties	2,262,144	3/1/99	LTV Steel Company, Inc.
CA	Water Driven Roller for Hot Strip Mill Sideguides	2,271,902	5/11/99	LTV Steel Company, Inc.
EPO	Electrical Steel with Improved Magnetic Properties in the Rolling Direction	Int Appl No. PCT/US99/12331	6/3/99	LTV Steel Company, Inc.
EPO	Method of Agglomerating Oil-Containing Steel Mill Waste	97925712.8 PCT/US97/00876	5/23/97	LTV Steel Company, Inc.
EPO	Controlled Foamy Slag Process	95116117.3-2309	10/12/95	LTV Steel Company, Inc.
EPO	Preventing Skull Accumulation on a Steelmaking Lance	97304189.0	6/16/97	LTV Steel Company, Inc.

SCHEDULE A

Patent Applications

Country	Title	Application No.	Filing Date	Assignee
EPO	Multipurpose Lance	97923482.0-2309 PCT/US97/07102	4/29/97	LTV Steel Company, Inc. Berry Metal Company
EPO	Foamy Slag Process Using Multi-Circuit Lance	98300199.1	12/1/97	LTV Steel Company, Inc.
EPO	Treatment of Steel Mill Waste Metal Oxides	99301207.9	12/18/99	LTV Steel Company, Inc. Maumee Research & Engineering USX Corporation
EPO	Water Driven Roller for Hot Strip Mill Sideguides	99304376.9	6/4/99	LTV Steel Company, Inc.
JP	Method of Making High Nitrogen Content Steel	6-327626	12/28/94	LTV Steel Company, Inc.
JP	Electrical Steel with Improved Magnetic Properties in the Rolling Direction	PCT/US99/12331	6/3/99	LTV Steel Company, Inc.
JP	Method of Agglomerating Oil-Containing Steel Mill Waste	PCT/US97/00876	11/27/98	LTV Steel Company, Inc.
JP	Controlled Foamy Slag Process	8-4150	1/12/96	LTV Steel Company, Inc.
JP	Preventing Skull Accumulation on a Steelmaking Lance	9-91991	4/10/97	LTV Steel Company, Inc.
JP	Multipurpose Lance	US SN 08/646,832 PCT/US97/07102	11/2/98	LTV Steel Company, Inc. Berry Metal Company
JP	Basic Oxygen Process with Iron Oxide Pellet Addition	10-107755	4/17/98	LTV Steel Company, Inc.
JP	Foamy Slag Process Using Multi-Circuit Lance	US SN 08/646,832 Reg. No. 5,885,323	5/31/96	LTV Steel Company, Inc.
JP	Submerged Entry Nozzle	10-348288	12/8/98	LTV Steel Company, Inc.
JP	Treatment of Steel Mill Waste Metal Oxides	11-82079	3/25/99	LTV Steel Company, Inc. Maumee Research & Engineering USX Corporation
JP	Water Driven Roller for Hot Strip Mill Sideguides	US Appl. No. 09/127,155	5/19/99	LTV Steel Company, Inc.
Korea	Method of Making High Nitrogen Content Steel	94-31002	11/24/94	LTV Steel Company, Inc.
Korea	Electrical Steel With Improved Magnetic Properties in the Rolling Direction	PCT/US99/12331	6/3/99	LTV Steel Company, Inc.
Korea	Method of Agglomerating Oil-Containing Steel Mill Waste	98-709880 PCT/US97/00876	11/30/98	LTV Steel Company, Inc.
Korea	Controlled Foamy Slag Process	94-41286	11/14/95	LTV Steel Company, Inc.
Korea	Multipurpose Lance	98-708880 PCT/US97/07102	10/30/98	LTV Steel Company, Inc. Berry Metal Company

SCHEDULE A**Patent Applications**

Country	Title	Application No.	Filing Date	Assignee
Korea	Basic Oxygen Process with Iron Oxide Pellet Addition	98-11345	3/31/98	LTV Steel Company, Inc.
Korea	Foamy Slag Process Using Multi-Circuit Lance	98-11344	3/31/98	LTV Steel Company, Inc.
Korea	Submerged Entry Nozzle	98-64101	12/31/98	LTV Steel Company, Inc.
Korea	Treatment of Steel Mill Waste Metal Oxides	99-6682	2/27/99	LTV Steel Company, Inc. Maumee Research & Engineering USX Corporation
Korea	Water Driven Roller for Hot Strip Mill Sideguides	10-1999-15642	4/30/99	LTV Steel Company, Inc.
Malaysia	Insulating Hematite Layer	PI20003720	8/15/00	LTV Steel Company, Inc.
MX	Electrical Steel with Improved Magnetic Properties in the Rolling Direction	PCT/US99/12331	6/3/99	LTV Steel Company, Inc.
MX	Process for Making Electrical Steels Having Good Cleanliness and Magnetic Properties	992294	3/9/99	LTV Steel Company, Inc.
PCT	Electrical Steel with Improved Magnetic Properties in the Rolling Direction	PCT/US99/12331	6/3/99	LTV Steel Company, Inc.
PCT	Method of Agglomerating Oil-Containing Steel Mill Waste	PCT/US97/00876	11/27/98	LTV Steel Company, Inc.
PCT	Multipurpose Lance	PCT/US97/07102	4/29/97	LTV Steel Company, Inc. Berry Metal Company
PCT	Steel With Electrically Insulating Hematite Layer	22218	8/10/00	LTV Steel Company, Inc.
PCT	Preventing Air Aspiration in Slide Gate Plate Throttling Mechanisms	US 09/495,976	12/11/00	LTV Steel Company, Inc.