

Form PTO-1595 (Rev. 03/01) RE
OMB No. 0651-0027 (exp. 03/31/2002)
Tab settings

03-01-2004

U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office



102680839

original documents or copy thereof.

To the Honorable Commissioner of F

1 Name of conveying party(ies):

Astec Industries, Inc
Astec, Inc
Heatec, Inc.

2-25-04

2 Name and address of receiving party(ies)

Name: General Electric Capital Canada, Inc

Internal Address:

c/o General Electric Capital Corporation

Street Address: 1100 Abernathy Road

Suite 900

City Atlanta State GA Zip 30328

Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Other _____

Additional name(s) & address(es) attached? Yes No

Execution Date: 05/14/2003

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s) _____

B Patent No.(s) 6467201
6386375 , 6375105 , 6360876

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: George M. Borababy

Internal Address:

Street Address: Patton Boggs LLP

2550 M Street, NW

City Washington State DC Zip 20037

6. Total number of applications and patents involved: 116

7. Total fee (37 CFR 3.41).....\$ 4,640.00

- Enclosed
- Authorized to be charged to deposit account

8. Deposit account number:

50-0709

DO NOT USE THIS SPACE

9. Signature.

George M. Borababy

Name of Person Signing

George M. Borababy
Signature

2/24/04

Date

Total number of pages including cover sheet, attachments, and documents: 21

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

03/01/2004 03:24:46 00000190 500709 6467201

FD-502 4540.00 08

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PATENT
REEL: 015201 FRAME: 0777

**RECORDATION FORM COVER SHEET
PATENTS ONLY
FORM PTO-1595**

1. Name of Conveying Parties, continued:

- CEF Enterprises, Inc.
- Astec Systems, Inc.
- Telsmith, Inc.
- Kolberg-Pioneer, Inc.
- Johnson Crushers International, Inc.
- Superior Industries of Morris, Inc.
- Breaker Technology, Inc.
- Production Engineered Products, Inc.
- Carlson Paving Products, Inc.
- Roadtec, Inc.
- Trencor, Inc.
- American Augers, Inc.
- AI Development Group, Inc.
- AI Enterprises, Inc.
- Astec Holdings, Inc.
- Astec Investments, Inc.
- Astec Transportation, Inc.
- RI Properties, Inc.
- TI Services, Inc.

4.B. Patent Numbers Continued:

6349819	6196710	5916504
6336560	6131674	5904904
6318928	6123279	5868522
6318193	6098811	5851085
6296109	6091337	5846026
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6276464	6033031	5788168
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5405214	4732670
5362193	4720929
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PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT, dated as of May 14, 2003, is made by, collectively, ASTEC INDUSTRIES, INC., a Tennessee corporation ("Astec Industries"), ASTEC, INC., a Tennessee corporation ("ASF"), HEATEC, INC., a Tennessee corporation ("Heatec"), CEI ENTERPRISES, INC., a Tennessee corporation ("CEI"), ASTEC SYSTEMS, INC., a Tennessee corporation ("ASI"), TELSMITH, INC., a Delaware corporation ("Telsmith"), KOLBERG-PIONEER, INC., a Tennessee corporation ("Kolberg"), JOHNSON CRUSHERS INTERNATIONAL, INC., a Tennessee corporation ("Crushers"), SUPERIOR INDUSTRIES OF MORRIS, INC., a Minnesota corporation ("Superior"), BREAKER TECHNOLOGY, INC., a Tennessee corporation ("Breaker"), PRODUCTION ENGINEERED PRODUCTS, INC., a Nevada corporation ("Production"), CARLSON PAVING PRODUCTS, INC., a Washington corporation ("Carlson"), ROADTEC, INC., a Tennessee corporation ("Roadtec"), TRENCOR, INC., a Texas corporation ("Trencor"), AMERICAN AUGERS, INC., a Delaware corporation ("Augers"), AI DEVELOPMENT GROUP, INC., a Minnesota corporation ("AIDG"), AI ENTERPRISES, INC., a Minnesota corporation ("AIEI"), ASTEC HOLDINGS, INC., a Tennessee corporation ("AHI"), ASTEC INVESTMENTS, INC., a Tennessee corporation ("AII"), ASTEC TRANSPORTATION, INC., a Tennessee corporation ("ATI"), RI PROPERTIES, INC., a Minnesota corporation ("RIPI"), and TI SERVICES, INC., a Minnesota corporation ("TISI") (Astec Industries, AI, Heatec, CEI, ASI, Telsmith, Kolberg, Crushers, Superior, Breaker, Production, Carlson, Roadtec, Trencor, Augers, AIDG, AIEI, AHI, AII, ATI, RIPI, and TISI are sometimes collectively referred to herein as "Grantors" and individually as a "Grantor"), in favor of GENERAL ELECTRIC CAPITAL CANADA INC., a Canada corporation ("Lender")

W I T N E S S E T H:

WHEREAS, pursuant to that certain Credit Agreement, dated as of May 14, 2003, by and among Breaker Technology Ltd., a Canada corporation ("Borrower"), the other Credit Parties signatory thereto and Lender (including all annexes, exhibits and schedules thereto, as from time to time amended, restated, supplemented or otherwise modified, the "Credit Agreement"), Lender has agreed to make the Loans to, and incur Letter of Credit Obligations for the benefit of, Borrower;

WHEREAS, in connection with the Credit Agreement and the other Loan Documents, Grantors shall have executed and delivered to Lender that certain Security Agreement dated as of the date hereof (including all annexes, exhibits or schedules thereto, as from time to time amended, restated, supplemented or otherwise modified, the "Security Agreement");

WHEREAS, pursuant to the Security Agreement, Grantors are required to execute and deliver to Lender this Patent Security Agreement;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantors hereby agree as follows:

1. **DEFINED TERMS** All capitalized terms used but not otherwise defined herein have the meanings given to them in the Credit Agreement.

2. **GRANT OF SECURITY INTEREST IN PATENT COLLATERAL**. Each Grantor hereby grants to Lender a continuing first priority security interest in all of such Grantor's right, title and interest in, to and under the following, whether presently existing or hereafter created or acquired (collectively, the "Patent Collateral"):

(a) all of its Patents and Patent Licenses to which it is a party including those referred to on Schedule I hereto;

(b) all reissues, continuations or extensions of the foregoing; and

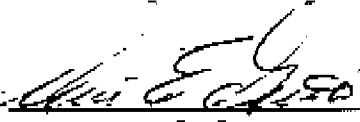
(c) all products and proceeds of the foregoing, including, without limitation, any claim by such Grantor against third parties for past, present or future infringement of any Patent or any Patent licensed under any Patent License

3. **SECURITY AGREEMENT**. The security interests granted pursuant to this Patent Security Agreement are granted in conjunction with the security interests granted to Lender pursuant to the Security Agreement. Grantors hereby acknowledge and affirm that the rights and remedies of Lender with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

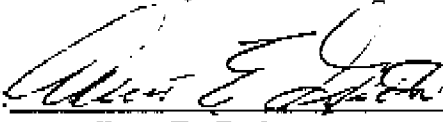
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IN WITNESS WHEREOF, each Grantor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

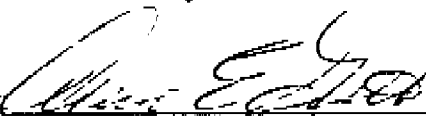
ASTEC INDUSTRIES, INC.,
a Tennessee corporation

By: 
Name: Albert E. Guth
Title: Secretary


ASTEC, INC.,
a Tennessee corporation

By: 
Name: Albert E. Guth
Title: Secretary

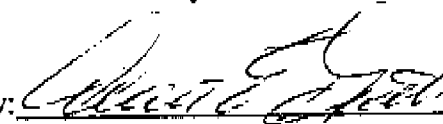
HEATEC, INC.,
a Tennessee corporation

By: 
Name: Albert E. Guth
Title: Secretary

CEI ENTERPRISES, INC.,
a Tennessee corporation

By: 
Name: Albert E. Guth
Title: Secretary

ASTEC SYSTEMS, INC.,
a Tennessee corporation

By: 
Name: Albert E. Guth
Title: Secretary

TELSMITH, INC.,
a Delaware corporation

By:  _____

Name: Albert E. Guth

Title: Secretary


KOLBERG – PIONEER, INC.,
a Tennessee corporation

By:  _____

Name: Albert E. Guth

Title: Secretary

**JOHNSON CRUSHERS INTERNATIONAL,
INC.,** a Tennessee corporation

By:  _____

Name: Albert E. Guth

Title: Secretary

SUPERIOR INDUSTRIES OF MORRIS, INC.,
a Minnesota corporation

By:  _____

Name: Albert E. Guth

Title: Secretary

BREAKER TECHNOLOGY, INC.,
a Tennessee corporation

By:  _____

Name: Albert E. Guth

Title: Secretary

**PRODUCTION ENGINEERED PRODUCTS,
INC., a Nevada corporation**

By: 

Name: Albert E. Guth

Title: Secretary

**CARLSON PAVING PRODUCTS, INC.,
a Washington corporation**

By: 

Name: Albert E. Guth

Title: Secretary

**ROADTEC, INC.,
a Tennessee corporation**

By: 

Name: Albert E. Guth

Title: Secretary

**TRENCOR, INC.,
a Texas corporation**

By: 

Name: Albert E. Guth

Title: Secretary

**AMERICAN AUGERS, INC.,
a Delaware corporation**

By: 

Name: Albert E. Guth

Title: Secretary

AI DEVELOPMENT GROUP, INC.,
a Minnesota corporation

By: *Ned Subarsky*
Name: *Ned Subarsky*
Title: *President*

AI ENTERPRISES, INC.,
a Minnesota corporation

By: *William Meek*
Name: *William Meek*
Title: *Secretary*

ASTEC HOLDINGS, INC.,
a Tennessee corporation

By: _____
Name: _____
Title: _____

ASTEC INVESTMENTS, INC.,
a Tennessee corporation

By: _____
Name: _____
Title: _____

ASTEC TRANSPORTATION, INC.,
a Tennessee corporation

By: _____
Name: _____
Title: _____

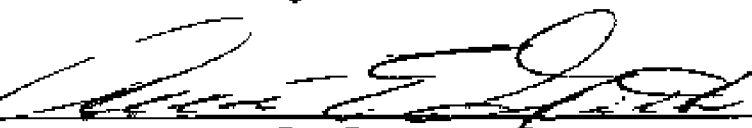
AI DEVELOPMENT GROUP, INC.,
a Minnesota corporation

By: _____
Name: _____
Title: _____


AI ENTERPRISES, INC.,
a Minnesota corporation

By: _____
Name: _____
Title: _____


ASTEC HOLDINGS, INC.,
a Tennessee corporation

By:  _____
Name: Albert E. Guth
Title: Secretary


ASTEC INVESTMENTS, INC.,
a Tennessee corporation

By:  _____
Name: Albert E. Guth
Title: Secretary

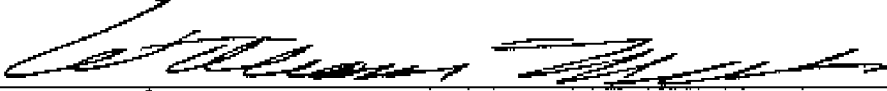
ASTEC TRANSPORTATION, INC.,
a Tennessee corporation

By:  _____
Name: Albert E. Guth
Title: Secretary

RI PROPERTIES, INC.,
a Minnesota corporation

By: 
Name: William Meek
Title: Secretary

TI SERVICES, INC.,
a Minnesota corporation

By: 
Name: William Meek
Title: Secretary

ACKNOWLEDGMENT OF GRANTORS

STATE OF Minnesota)
) ss.
COUNTY OF Swift)

On this 7th day of May, 2003 before me personally appeared Neil Schmidgall, proved to me on the basis of satisfactory evidence to be the person who executed the foregoing instrument on behalf of AI DEVELOPMENT GROUP, INC. who being by me duly sworn did depose and say that he is an authorized officer of said companies, that the said instrument was signed on behalf of said companies authorized by its members/managers and that he acknowledged said instrument to be the free act and deed of said companies.

Glancy J. Schmidt
{seal} Notary Public

ACKNOWLEDGMENT OF GRANTORS

STATE OF Minnesota)
) ss.
COUNTY OF Swift)

On this 7th day of May, 2003 before me personally appeared William Mack, proved to me on the basis of satisfactory evidence to be the person who executed the foregoing instrument on behalf of AI ENTERPRISES, INC. who being by me duly sworn did depose and say that he is an authorized officer of said companies, that the said instrument was signed on behalf of said companies authorized by its members/managers and that he acknowledged said instrument to be the free act and deed of said companies.

Mary J. Schmitt
(seal) Notary Public

ACKNOWLEDGMENT OF GRANTORS

STATE OF Minnesota)
) ss.
COUNTY OF Scott)

On this 7th day of May, 2003 before me personally appeared William Meek, proved to me on the basis of satisfactory evidence to be the person who executed the foregoing instrument on behalf of RI PROPERTIES, INC. who being by me duly sworn did depose and say that he is an authorized officer of said companies, that the said instrument was signed on behalf of said companies authorized by its members/managers and that he acknowledged said instrument to be the free act and deed of said companies.

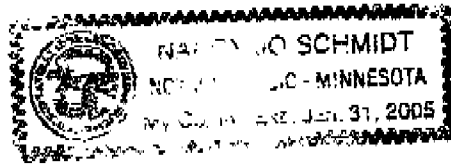
Mary Jo Schmidt
{seal} Notary Public

ACKNOWLEDGMENT OF GRANTORS

STATE OF Minnesota)
) ss.
COUNTY OF Swift)


On this 7th day of May, 2003 before me personally appeared William Meek proved to me on the basis of satisfactory evidence to be the person who executed the foregoing instrument on behalf of TI SERVICES, INC. who being by me duly sworn did depose and say that he is an authorized officer of said companies, that the said instrument was signed on behalf of said companies authorized by its members/managers and that he acknowledged said instrument to be the free act and deed of said companies.

Nancy Jo Schmidt
{seal} Notary Public



ACCEPTED AND ACKNOWLEDGED BY:

**GENERAL ELECTRIC CAPITAL CANADA
INC.**

By: 
Name: ELLIS GASTON
Title: V.P. RISK

PATENT	DESCRIPTION	ISSUED	EXPIRES	COMPANY	COUNTRY	INVENTOR	FEE DUE
9467201	Trench-Cutting Machine	10/22/2002	4/26/2021	RI PROPERTIES, INC.	USA	NICHSHARRY, et al.	4/22/2006
9398315	Lubrication System for Vibrating Flat Screens	5/14/2002	1/10/2021	JCI	USA	OLSEN	1/11/2005
8375105	Lawn Crsr. Trolley Beam Hydraulic Relief & Cng.	4/23/2002	3/21/2020	TI SERVICES, INC.	USA	HAVEN, et al.	10/21/2005
8368076	Portable Telescoping Radial Stacking Conveyor	3/24/2002	10/20/2019	ASTEC INDUSTRIES, INC.	USA	NOHL, et al.	9/20/2015
8349191	Belt Conveyor Idler Support Frame	2/26/2002	5/25/2020	ASTEC INDUSTRIES, INC.	USA	SCHAEFER	7/9/2005
8336560	Grizzly Screening Apparatus	1/8/2002	2/1/2020	ASTEC INDUSTRIES, INC.	USA	SWERLINGEN	5/20/2005
8318928	Mtr. App. For Elec. Hg. Servo Mch. In-Pkg. Mach.	1/12/2001	1/7/2020	ASTEC INDUSTRIES, INC.	USA	BROCK, et al.	5/20/2005
8298109	Apparatus For Use In Sampling Aggregate	10/21/2001	10/14/2014	ASTEC INDUSTRIES, INC.	USA	BROCK	4/21/2005
8285660	Fold Linkage and Method of Using Same	9/14/2001	9/22/2018	AMERICAN ALUMINUM, INC.	USA	SZARAKA, et al.	3/4/2005
8276464	Stake Compiler for a Horizontal Directional Drill	8/27/2001	2/10/2020	ASTEC INDUSTRIES, INC.	USA	DRAWLEY, et al.	2/21/2005
8257390	Multi Position Staking Sys. for a Horiz. Dir. Drill	7/10/2001	2/11/2020	ASTEC INDUSTRIES, INC.	USA	DRAWLEY, et al.	1/10/2005
8237703	Pipe Cartridge for a Horizontal Directional Drill	5/22/2001	2/11/2020	ASTEC INDUSTRIES, INC.	USA	MORFITT, et al.	1/12/2004
8234718	Vibratory Apparatus	4/17/2001	1/12/2019	ASTEC INDUSTRIES, INC.	USA	DRAWLEY, et al.	10/17/2004
8216797	Thrust System for a Horizontal Directional Drill	4/27/2001	1/4/2020	RI PROPERTIES, INC.	USA	NICHSHARRY	10/21/2004
8196710	Melt & App. For Casting Furnible Slabs	3/8/2001	4/20/2019	ASTEC INDUSTRIES, INC.	USA	DRAWLEY, et al.	4/17/2004
8131874	Grillage App. for Resilient Sliding of Drill Mach	10/17/2000	4/20/2019	ASTEC INDUSTRIES, INC.	USA	STAFFORD, et al.	3/23/2004
8123279	Rock Crusher Having Crushing-Enhancing Inlets	9/29/2000	3/18/2018	TI SERVICES, INC.	USA	SCHAEFER	2/8/2004
8094811	Grizzly Screening Apparatus	8/8/2000	3/15/2018	ASTEC INDUSTRIES, INC.	USA	ARSHAD, et al.	1/18/2004
8091337	High Voltage Contact Monitor with Built-In Self-Test	7/18/2000	10/9/2018	ASTEC, INC.	USA	BROCK, et al.	1/16/2003
8062093	Mtr. & App. For Sampling Agg. Material	5/18/2000	10/9/2018	ASTEC, INC.	USA	BROCK, et al.	1/16/2003
8032808	Roll Mach. w/Vibrating Mech. & Rotary Drum	3/27/2000	3/11/2018	RI PROPERTIES, INC.	USA	CAMPBELL	9/7/2003
8032808	Adjustment for Rock Crusher	3/18/2000	3/18/2018	JCI	USA	CAMPBELL	9/7/2003
8012241	Chain Trencher Having Head Shaft Wear Plates	1/11/2000	10/27/2018	TREACOR, INC.	USA	DRINKWATER, et al.	9/7/2003
8007431	Rock Crusher Having Crushing-Enhancing Inlets	10/19/1998	3/18/2018	TI SERVICES, INC.	USA	PASSENSKI, et al.	7/11/2003
8006039	Gate Crusher for Rock	9/14/1998	9/24/2018	JCI	USA	DRINKWATER, et al.	4/18/2007
8001994	Anti-Spin Mechanism for Gyrology Crusher	8/21/1998	3/20/2018	TI SERVICES, INC.	USA	HAVEN, et al.	2/3/2007
8016604	Mlt. & App. For Form a Compacted Test Spec.	8/29/1998	7/7/2017	ASTEC, INC.	USA	JAKOB, et al.	12/8/2009
8004904	Trmt. of Certain Pass. Mat. by Low-Temp. Flmt.	5/18/1998	10/31/2018	RI PROPERTIES, INC.	USA	SWANSON	1/11/2008
8004922	Vibratory Feed Ass. for an Asphalt Pvg. Mach.	2/13/1998	1/16/2017	RI PROPERTIES, INC.	USA	CAMPBELL	8/9/2008
8051085	Mlt. For Squeezing a Fack Material	12/22/1998	8/29/2014	RI PROPERTIES, INC.	USA	CAMPBELL	8/22/2008
8046628	Method for Plecking Paddling	1/28/1998	3/5/2017	TREACOR, INC.	USA	GILBERT, et al.	8/8/2008
8033843	Portable Radial Stacking Conveyor	1/10/1998	5/14/2018	SUPERIOR	USA	SCHINDIGALL, et al.	5/10/2008
8031818	Self-Loading Mobile Crusher System	8/4/1998	3/9/2017	TREACOR, INC.	USA	GILBERT, et al.	2/4/2008
8028227	Screening Apparatus	3/31/1998	10/25/2015	TI SERVICES, INC.	USA	DORSCHT	8/28/2005
8089140	Feeding Machine for Payment Samples	8/19/1997	8/13/2018	ASTEC, INC.	USA	JAKOB	2/18/2005
8042881	Mlt. For Conveying & Disintegrating Aggr.	7/1/1997	4/16/2018	RI PROPERTIES, INC.	USA	CAMPBELL	1/1/2005
8015973	Pay Mach. w/Gravity Feed Hopper & Auger	4/11/1997	9/29/2014	RI PROPERTIES, INC.	USA	CAMPBELL	10/17/2004
8017208	Quarry Miner	1/12/1998	4/21/2015	TREACOR, INC.	USA	GILBERT	5/28/2004
8017938	Rock Saw w/Centrifugal Conveyor Assembly	1/19/1998	8/1/2015	ASTEC INDUSTRIES, INC.	USA	GILBERT	6/18/2004
8064205	Expanding Machine w/Screenable Discharge	10/15/1998	8/14/2015	ASTEC INDUSTRIES, INC.	USA	SMITH	4/18/2004
8064908	Mlt. & App. For Convey & Discharge Aggr.	9/10/1998	9/29/2014	RI PROPERTIES, INC.	USA	CAMPBELL	3/3/2004
8051166	Dryer Drum Coater Having Variable Outer Sh.	9/11/1998	3/7/2014	RI PROPERTIES, INC.	USA	MILSTEAD	3/3/2004
8040394	Adv. Alack. For Gyrology Crsr. Concave	7/30/1998	5/2/2015	TI SERVICES, INC.	USA	BREWER, et al.	1/30/2004
8040394	Gyrla Crsr. w/Bllder Oper. Bowl Lock Mech.	7/30/1998	4/28/2005	TI SERVICES, INC.	USA	STAFFORD, et al.	1/20/2004
8033828	Pay Mach. w/Mtr. Drivels&Dischng. Conv. Ass.	7/9/1998	2/16/2015	RI PROPERTIES, INC.	USA	CAMPBELL	1/9/2004
8033828	Mtr. & App. For Discharge Pay Mat. On Top	7/9/1998	2/16/2015	RI PROPERTIES, INC.	USA	CAMPBELL	1/9/2004
8015981	Portable Radial Stacking Conveyor	5/14/1998	8/11/2014	SUPERIOR	USA	MURPHY	11/7/2003
8000635	Control Cab Support Mechanism	2/13/1998	8/2/2014	TI SERVICES, INC.	USA	GRAY	8/13/2003
8000635	Hammers for Hammer Mills	1/16/1998	8/31/2014	ASTEC INDUSTRIES, INC.	USA	DORSCHT/HOGAN	7/18/2003
8000635	Vibratory Cable Flow Assembly	1/9/1998	11/18/2013	ASTEC INDUSTRIES, INC.	USA	DRAWLEY, et al.	7/18/2003
8000635	Hot Air Dryer for Cooling Chain Type	12/29/1995	9/22/2014	RI PROPERTIES, INC.	USA	SWANSON	6/27/2003
8000635	Mtr. & Appar. for Cooling Chain Type	12/29/1995	9/22/2014	TREACOR, INC.	USA	GILBERT	6/5/2003
8000635	Directional Boring Drill Bit Head	11/28/1995	4/22/2014	ASTEC INDUSTRIES, INC.	USA	LESSARD	5/28/2007
8000635	Sys. For the Removal of Heavy Contamin.	11/14/1995	7/10/2012	RI PROPERTIES, INC.	USA	SWANSON, et al.	5/14/2003

PATENT	DESCRIPTION	ISSUED	EXPIRES	COMPANY	COUNTRY	INVENTOR	FEE DUE
5411101	Field Conveyor Apparatus for Conducing	07/05/1995	12/17/2013	RI PROPERTIES, INC	USA	CAMPBELL	2/15/2007
5402675	Method of Erecting a Port Asphalt Plant	07/02/1995	01/12/2014	AI ENTERPRISES, INC.	USA	MILSTEAD	1/18/2003
5422808	Batch Asphalt Pile with/and Weigh Hopper	07/02/1995	12/27/2013	AI ENTERPRISES, INC.	USA	MILSTEAD	12/12/2008
5405214	Paving Machine Incorporating Automatic	04/11/1995	01/22/2013	RI PROPERTIES, INC	USA	CAMPBELL	10/11/2006
5362193	Self-Erecting Asphalt Production Plant	11/20/1994	11/01/2011	AI ENTERPRISES, INC	USA	MILSTEAD	01/01/2006
5348418	Asphalt Finishing Screen with/and Compactor	09/20/1994	02/09/2011	AI ENTERPRISES, INC	USA	CAMPBELL	2/20/2006
5334012	Combustion Chamber with/and NOX	02/21/1994	02/22/2011	AI ENTERPRISES, INC	USA	BROCK, et al	2/22/2006
5320026	Asphalt Drum with/and Temperature Sensor	07/14/1994	01/14/2011	AI ENTERPRISES, INC	USA	CAMPBELL	12/14/2005
5315170	Roadway Trenching Apparatus	05/31/1994	03/14/2011	RI PROPERTIES, INC	USA	RAYMOND	11/20/2005
5306190	Mix & App. For High An Asphalt Pkg. Screen	07/01/1994	10/13/2013	CARLSON	USA	RAYMOND	07/01/2005
5294085	Portable screen/water/pumping plant	11/01/1993	12/09/2010	ASTEC INDUSTRIES, INC	USA	HARRIS, et al	01/12/2005
5259717	Conveying Apparatus for Asphalt Mix &	11/01/1993	11/09/2010	ASTEC INDUSTRIES, INC	USA	RAYMOND	01/12/2005
5259693	Mix & App. For High An Asphalt Pkg. Screen	11/01/1993	11/09/2010	ASTEC INDUSTRIES, INC	USA	RAYMOND	01/12/2005
5202999	Classifying Apparatus and Methods	01/27/1993	03/20/2010	PEP	USA	MAVHARD	2/12/2005
5228221	Boom Assembly for a Trencher Machine	07/01/1993	07/10/2011	ASTEC INDUSTRIES, INC	USA	HILLARD, et al	12/02/2005
5228486	Truck Mounted Blowing System	07/01/1993	03/02/2012	CARLSON	USA	RAYMOND	12/17/2004
5215404	Screen Unit for Asphalt Paving Machines	07/11/1993	07/11/2010	AI ENTERPRISES, INC.	USA	MILSTEAD	12/17/2004
5215312	Aggregate Stor. Apparatus for Prod. Asphalt	07/02/1993	07/15/2012	ASTEC INDUSTRIES, INC.	USA	HILLARD, et al	11/26/2004
5212698	Control Sys. for a Walk Behind Trencher Mach.	07/01/1993	07/11/2010	THEINCO, INC.	USA	GILBERT	11/11/2004
5209001	Trencher w/long, Stabilized Main Frame	07/01/1993	07/11/2010	THEINCO, INC.	USA	SWANSON	10/12/2004
5203893	Rotary Drum with/and Internal Flights	04/20/1993	04/20/2010	AI ENTERPRISES, INC.	USA	BROCK	09/30/2004
5201472	Math. For Prip. & Storing. Recrd. Shingles	04/01/1993	04/19/2010	ASTEC INDUSTRIES, INC.	USA	MOFFITT, et al	09/30/2004
5197347	Hand/Feat. Cont. Sys. For an Off-Hwy. Implement	03/20/1993	03/21/2012	ASTEC INDUSTRIES, INC.	USA	SCHROEDER	02/22/2004
5189617	Chamber Mechanism for a Trencher Machine	02/11/1993	02/24/2012	ASTEC INDUSTRIES, INC.	USA	DORSCHTROGAN	02/22/2004
5181603	Full Cylinder with a Screen Position	12/20/1993	2/12/2012	ASTEC INDUSTRIES, INC.	USA	RAYMOND	01/12/2003
5098833	Mix. & App. For High. App. Prod. of Road Base	01/27/1992	04/22/2008	CARLSON	USA	GILBERT	01/09/2003
RE55088	Trench. Mach. with/and Adj. Chain Type Dig	12/10/1991	12/10/2008	TRENCO, INC.	USA	GILBERT	01/09/2003
5054985	Dozer Blade Moulding Apparatus	10/02/1991	10/08/2008	AI ENTERPRISES, INC.	USA	MOFFITT, et al	04/22/2003
5054931	C Flow Drum Mix. w/and Hydrocarbon Emuls	10/02/1991	10/08/2008	AI ENTERPRISES, INC.	USA	FARHAMARILL	04/22/2003
5035534	Shut. Bug. App. For Transporting Asphalt. Ag	07/01/1991	07/09/2008	RI PROPERTIES, INC	USA	BROCK	1/20/2003
5029120	Feed-Carrying Apparatus for Cable Installers	07/01/1991	12/22/2010	ASTEC INDUSTRIES, INC.	USA	EMMING	01/09/2003
4949307	In-Place Recy. Asphalt. Pavement Recy. App.	07/11/1991	07/11/2007	RI PROPERTIES, INC	USA	JAKOB	11/04/2002
4944630	Shut. Bug. Contained within Wheel of a Tract	03/31/1990	03/31/2007	RI PROPERTIES, INC	USA	BROCK, et al	27/2002
D309813	DESIGN: Feed Planer (Feed/Liner)	07/31/1989	07/31/2004	TRENCO, INC	USA	GILBERT	11/27/2002
4909333	Vibratory Plow	03/20/1989	03/12/2004	ASTEC INDUSTRIES, INC.	USA	LINDSTROM	N/A
4909312	Vibratory Plow	03/20/1989	03/12/2008	ASTEC INDUSTRIES, INC.	USA	LINDSTROM	NONE
4908392	Inpr. Tensioning Assembly for Vbl. Screens	03/01/1990	03/02/2007	PEP	USA	NELSON	NONE
4895053	Ignition Extending/Disabling Device	12/27/1990	11/17/2009	ASTEC INDUSTRIES, INC.	USA	MOFFITT, et al	NONE
4871032	Multiple Edge Snd. Cutter for Vibratory Plow	10/21/1989	07/12/2008	ASTEC INDUSTRIES, INC.	USA	LINDSTROM, et al	NONE
4808712	DBBL. Asphalt Pte. w/and Sleeve Wlder	01/01/1989	01/19/2008	AI ENTERPRISES, INC.	USA	BROCKWAY	NONE
4801195	Cable Plow Chute	05/01/1989	02/25/2008	ASTEC INDUSTRIES, INC.	USA	HILLARD, et al	NONE
4822763	Trencher Crusher Assembly	07/01/1989	07/01/2008	AI SERVICES, INC.	USA	EMMING	NONE
4818140	Impact Crusher	04/01/1989	11/21/2008	CARLSON	USA	PUETZ	NONE
4818139	Screen Extender with/and Fronting Screen	04/01/1989	04/01/2008	RI PROPERTIES, INC.	USA	CARLSON	NONE
4784708	Shut. Bug. with/and App. For Making Asphalt	01/11/1989	01/11/2008	ASTEC INDUSTRIES, INC.	USA	BROCK, et al	NONE
4783013	Trenching Machine Boom Assembly	11/01/1988	11/01/2005	AI SERVICES, INC.	USA	SCHROEDER, et al	NONE
4753001	Jaw Crusher Toggle Beam Locking Structure	07/01/1988	07/01/2005	AI SERVICES, INC.	USA	POLZIN	NONE
4742827	Road Planer (Road Miner)	07/01/1988	07/01/2005	TRENCO, INC	USA	GILBERT	NONE
4732676	Digging Boom Assembly	01/07/1988	01/24/2005	ASTEC INDUSTRIES, INC.	USA	LINDSTROM	NONE
4720929	Tensioning Assembly for Vibratory Screens	01/22/1988	01/22/2005	PEP	USA	NELSON	NONE
4715730	Trenching Device	12/01/1988	11/26/2005	TRENCO, INC	USA	UMERSON	NONE
4682892	DNLC. Drum Mix w/and Knock-Out Box & Pupini	07/19/1987	07/19/2005	AI ENTERPRISES, INC.	USA	BROCK	NONE
4816904	Torque Limiter for Gyrotary Crush. Apts. Sips	07/19/1987	07/19/2005	AI ENTERPRISES, INC.	USA	BROCK	NONE
4816904	Drum Mix Asphalt Pte. w/and Knock-Out Box & Sap	07/19/1987	07/19/2005	AI ENTERPRISES, INC.	USA	BROCK	NONE
4815491	Gyrotary Crush w/and Auto. Tramp Icer Release	10/27/1986	10/27/2003	AI SERVICES, INC.	USA	BATCHISTAFFORD	NONE
4596241	Digging Tools and Holder Therefor	01/17/1986	01/16/2004	TRENCO, INC	USA	GILBERT	NONE

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PATENT	DESCRIPTION	ISSUED	EXPIRES	COMPANY	COUNTRY	INVENTOR	FILED
4588034	Vibratory Feed Beds	5/13/1969	1/28/2004	ASTEC INDUSTRIES, INC.	USA	LEONARD, et al.	NONE
4553448	Dual Rate Control Assembly	1/16/1985	6/2/2003	ASTEC INDUSTRIES, INC.	USA	YOUNGERS, et al.	NONE
4528475	Dual Wheel Mounting Arrangement	7/2/1985	4/4/2003	ASTEC INDUSTRIES, INC.	USA	SCHROEDER	NONE
254147	Gr. Chu. w/Tramp Iron Rel. (=US 4815491)	10/28/1990		TI SERVICES, INC.	ARGENT	BATCHSTAFFORD	1/22/2002
634278	Recycling Train (=US 4948307)	8/9/1984	8/9/2008	AI ENTERPRISES, INC.	AUSTRIAL	JAKOB	8/9/2002
0 487834	Asph. Pavement Recycling App. (=US 4848307)	1/22/1994	8/8/2010	RI PROPERTIES, INC.	AUSTRIA	JAKOB	8/8/2001
0 487834	Asph. Pavement Recycling App. (=US 4848307)	1/22/1994	8/8/2010	RI PROPERTIES, INC.	BELGIUM	JAKOB	8/8/2001
878131	Asph. Drum Mkr. Htg. Temp. Sensor End	12/01/1997		AI ENTERPRISES, INC.	BELGIUM	KEYLON, et al.	3/1/2001
8804611	Jaw Cnk. Tng. Beam Lock (=US 1783013)	4/22/1993		TI SERVICES, INC.	BRAZIL	POLZIN	12/2/2002
1281318	Road Planer w/Full Width Cold Recy. Tool	12/27/1990	12/27/2007	TRENGOR, INC.	CANADA	GILBERT	12/27/2001
1288902	Screed Extender w/Beam Flaming Screed	7/30/1991		CARLSON	CANADA	CARLSON	7/30/2001
1301093	Rotational Limiting Device	5/19/1992	5/19/2009	AI ENTERPRISES, INC.	CANADA	UMBERSON	5/19/2001
1303951	Shuttle Buggy (=US 4818139)	6/20/1992	6/20/2009	RI PROPERTIES, INC.	CANADA	BROCK, et al.	6/20/2001
1328429	Shuttle Buggy, Mat. Sapp. for Asp. Aggr. Pave.	4/12/1994	4/12/2011	RI PROPERTIES, INC.	CANADA	BROCK, et al.	4/12/2002
1328430	Shuttle Buggy, Mat. Sapp. for Asp. Aggr. Pave.	4/12/1994	4/12/2011	RI PROPERTIES, INC.	CANADA	BROCK, et al.	4/12/2002
195282	Material Handling System	10/15/1985	10/15/2002	BTI (Inc.)	CANADA		10/15/2000
2005308	Port Self-Feed App. Star (=US 1943200)	9/27/1994	12/13/2009	AI ENTERPRISES, INC.	CANADA	EDWARDS, et al.	12/13/2001
2050444	Screed Heating System	5/21/1995		CARLSON	CANADA	EDWARDS, et al.	5/21/2001
2080190	Asphalt Pavement Recycling Apparatus	1/19/1998	8/8/2010	AI ENTERPRISES, INC.	CANADA	JAKOB	8/8/2002
2074835	Classifying Apparatus and Methods	7/16/1982	7/16/2002	PIEP	CANADA	NELSON, et al.	7/16/2001
2079889	Screed Unit for Asphalt Paving Machine	10/14/1987		CARLSON	CANADA	RAYMOND	10/14/2001
2084818	Tub Grinder with Screen Portion	6/01/1987	10/19/2014	KOLBERG-PIONEER, INC.	CANADA	DORSCHT	2/2/2001
2091077	Mth. & App. For Htg. An Asphalt Pvg. Screed	7/23/1998		CARLSON	CANADA	RAYMOND	7/23/2001
2128830	Mth. & App. For Htg. An Asphalt Pvg. Screed	12/01/1998		AI ENTERPRISES, INC.	CANADA	RAYMOND	12/01/2001
2133410	Asphalt puffer/absorber of asphalt curber Asphalt Pvg.	2/29/1996	02/29/2013	KOLBERG-PIONEER, INC.	CANADA	MILSTEAD	2/29/2002
2170893	Screening Apparatus (donut screen)	12/01/1998	10/9/2015	AI ENTERPRISES, INC.	CANADA	MILSTEAD	3/9/2001
2184917	Dryer Drum Cooler Having Vented Outer Shell	8/12/1999		JCI	CANADA		8/12/2002
220114	Adjustment for Rock Crusher	8/17/1999		JCI	CANADA		8/17/2002
2280609	Cone Crusher for Rock	8/17/1999		JCI	CANADA		8/17/2002
0 487834	Asph. Pavement Recycling App. (=US 4948307)	1/22/1994	8/8/2010	RI PROPERTIES, INC.	DEMARK	JAKOB	8/8/2001
381882	Shuttle Buggy (=US 5015120)	7/26/1995		RI PROPERTIES, INC.	EPO	BROCK, et al.	3/6/1995
487834	Asph. Pavmt. Recycling Apparatus (#4048307)	1/12/1994	8/8/2010	AI ENTERPRISES, INC.	EPO	JAKOB	3/6/1995
825439	Tsig. Machine for Pavmt. Samples (#659140)	11/12/2002	7/18/1997	ASTEC, INC.	EPO	JAKOB EDWARDS	7/18/2003
2692500	Torque Lim. Gyr. Crush. (=US 4880922)	7/20/1990	4/24/2008	TI SERVICES, INC.	FRANCE	BREMER	4/24/2002
2598871	Gyr. Chu. w/Tramp Iron Rel. (=US 4815491)	4/8/1994	4/7/2008	TI SERVICES, INC.	FRANCE	BATCH, et al.	4/7/2002
0 308152	Shuttle Buggy (=US 4818139)	8/15/1985	8/15/2008	RI PROPERTIES, INC.	FRANCE	BROCK, et al.	8/15/2002
0 381892	Mth. & App. For Flaking Asph. Aggr. Pavement	7/28/1995	4/4/2009	RI PROPERTIES, INC.	FRANCE	BROCK, et al.	4/4/2001
0 447854	Asph. Pavement Recycling App. (=US 4948307)	1/22/1994	8/8/2010	RI PROPERTIES, INC.	FRANCE	JAKOB	8/8/2002
	Self-Loading Mobile Crusher System			TRENGOR, INC.	FRANCE	GILBERT, et al.	1/1/2001
PIA/20823	Shuttle Buggy (=US 4818139)	8/15/1988	8/15/2008	RI PROPERTIES, INC.	GERMANY	BROCK, et al.	8/15/2002
89013241	Asph. Pavement Recycling App. (=US 4948307)	1/12/1994	8/8/2010	RI PROPERTIES, INC.	GERMANY	JAKOB	8/8/2002
89028097	Mth. & App. For Flaking Asph. Aggr. Pavement	7/28/1995	4/4/2009	RI PROPERTIES, INC.	GERMANY	BROCK, et al.	4/4/2001
878131	Asph. Drum Mkr. Htg. Temp. Sensor End	12/01/1997		AI ENTERPRISES, INC.	GERMANY	KEYLON, et al.	3/1/2001
	Self-Loading Mobile Crusher System			TRENGOR, INC.	GERMANY		1/1/2001
308152	Shuttle Buggy (=US 4818139)	8/15/1988	8/15/2008	RI PROPERTIES, INC.	ITALY	BROCK, et al.	8/15/2002

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PATENT	DESCRIPTION	ISSUED	EXPIRES	COMPANY	COUNTRY	INVENTOR	FEE DUE
0 331 882	Mth. & App. For Making Asp. Agg. Pavement	7/28/1995	4/4/2009	RI PROPERTIES, INC.	ITALY	BROCK, et al.	4/4/2001
0 487 834	Asph. Pavement Recycling App. (=US 4846307)	11/27/1994	8/6/2010	RI PROPERTIES, INC.	ITALY	JAKOB	8/6/2002
	Self-Loading Mobile Crusher System			TRENCOR, INC.	ITALY		11/12/2002
1 393 374	Baghouse Divisional, Japanese			AI ENTERPRISES, INC.	JAPAN		11/01/1994
1 384 875	Bin Patent (Assigned by JENCO)			AI ENTERPRISES, INC.	JAPAN		7/28/1993
2 226 041	Straddle Buggy (=US 4818139)	5/31/1998	8/24/2008	RI PROPERTIES, INC.	JAPAN	BROCK, et al.	5/31/2001
2 785 039	Mth. & App. For Making Asp. Agg. Pavement	5/29/1998	2/10/2009	RI PROPERTIES, INC.	JAPAN	BROCK, et al.	5/29/2001
3 230 751	Asphalt Drum Mtr. w/Temp. Control	8/17/2001		AI ENTERPRISES, INC.	JAPAN	KEYLON, et al.	8/17/2004
8 598 3	Gyr. Con. w/Tamper Iron Roll. (=US 4818481)	9/24/1993		TI SERVICES, INC.	KOREA	BATCH-STAFFORD	
0 487 834	Asph. Pavement Recycling App. (=US 4846307)	11/27/1994	8/6/2010	RI PROPERTIES, INC.	LUXEMBURG	JAKOB	8/6/2002
1 879 54	Mth. & App. For Htg. An Asp. Png. Sceded	2/2/1998		CARLSON	MEXICO	RAYMOND	
1 652 39	Jaw Cn. Tog Beam Lock (=US 479 301.3)			TELSMITH	MEXICO		
0 331 882	Mth. & App. For Making Asp. Agg. Pavement	7/28/1995	4/4/2009	RI PROPERTIES, INC.	NETHERLANDS	BROCK, et al.	4/4/2001
0 487 834	Asph. Pavement Recycling App. (=US 4846307)	11/27/1994	8/6/2010	RI PROPERTIES, INC.	NETHERLANDS	JAKOB	8/6/2002
8 781 1	Asph. Drum Mtr. Htg. Temp. Sensor Encl.	12/31/1997		AI ENTERPRISES, INC.	NETHERLANDS	KEYLON, et al.	9/12/2001
8 624 91	Gyr. Cr. w/Auto. Trans. Iron Roll. (=US 4818481)	4/5/2003		TI SERVICES, INC.	SAFR	BATCH, et al.	
8 627 73	Torque Lim. Gyr. Crush. (=US 4868092)	4/14/2008		TI SERVICES, INC.	SAFR	BREMER	
8 806 12	Jaw Cn. Tog Beam Lock (=US 478 301.3)	11/8/1988	8/14/2004	TI SERVICES, INC.	SAFR	POLEZNA	8/14/2001
9 837 05	Rock Crntr. Htg. Crntrg. Enhancing Inserts	2/24/1988	8/23/2018	TI SERVICES, INC.	SAFR	STAFFORD, et al.	9/23/2001
8 930 328 9	Mth. & App. For Making Asp. Agg. Pavement	7/28/1995	4/4/2009	RI PROPERTIES, INC.	SPAIN	BROCK, et al.	4/4/2001
8 920 294 9	Straddle Buggy (=US 4818139)	8/5/1998	8/6/2008	RI PROPERTIES, INC.	SPAIN	BROCK, et al.	8/6/2002
0 487 834	Asph. Pavement Recycling App. (=US 4846307)	11/27/1994	8/6/2010	RI PROPERTIES, INC.	SPAIN	JAKOB	8/6/2002
	Self-Loading Mobile Crusher System			TRENCOR, INC.	SPAIN		11/12/2001
0 308 152	Straddle Buggy (=US 4818139)	8/5/1998	8/6/2008	RI PROPERTIES, INC.	SWEDEN	BROCK, et al.	8/5/2002
0 487 834	Asph. Pavement Recycling App. (=US 4846307)	11/27/1994	8/6/2010	RI PROPERTIES, INC.	SWEDEN	JAKOB	8/6/2002
0 091 52	Straddle Buggy (=US 4818139)	8/5/1998	8/6/2008	RI PROPERTIES, INC.	SWITZER	BROCK, et al.	8/5/2002
0 487 834	Asph. Pavement Recycling App. (=US 4846307)	11/27/1994	8/6/2010	RI PROPERTIES, INC.	SWITZER	JAKOB	8/6/2002
1 878 783	Control App. For a Pneumatic. Gyr. Hgr. Fed.	10/15/1980		BT Inc.1	UK		
3 081 52	Straddle Buggy (=US 4818139)	8/5/1998	8/6/2008	RI PROPERTIES, INC.	UK	BROCK, et al.	8/5/2002
2 184 798	Torque Lim. Gyr. Crush. (=US 4868092)	10/18/1988	4/9/2008	TI SERVICES, INC.	UK	BREMER	4/9/2002
2 183 953	Gyr. Cn. w/Tamper Iron Roll. (=US 4818481)	11/28/1989	3/28/2008	TI SERVICES, INC.	UK	BATCH	3/28/2001
2 214 439	Jaw Crush. Toggle Beam Lock (=US 478 301.3)	7/31/1991	8/17/2008	TI SERVICES, INC.	UK	POLEZNA	8/17/2001
0 381 882	Mth. & App. For Making Asp. Agg. Pavement	7/28/1995	4/9/2009	RI PROPERTIES, INC.	UK	BROCK, et al.	4/4/2001
0 487 834	Asph. Pavement Recycling App. (=US 4846307)	11/27/1994	8/6/2010	RI PROPERTIES, INC.	UK	JAKOB	8/6/2002
8 781 1	Asph. Drum Mtr. Htg. Temp. Sensor Encl.	12/31/1997		AI ENTERPRISES, INC.	UK	KEYLON, et al.	9/12/2001