506690041 05/28/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6736858

NATURE OF CONVEYANCE: Corrective Assignment to correct the CORRECTIVE ASSIGNMENT CORRECT THE ASSIGNEE'S TYPE OF COMPANY TO BE "INC"	
RATHER THAN "LLC" previously recorded on Reel 056355 Frame Assignor(s) hereby confirms the ASSIGNOR(S) HEREBY CONFIRM THE ASSIGNMENT OF INTELLECTUAL PROPERTY LISTED IN TORIGINAL ASSIGNMENT	0646. MS

CONVEYING PARTY DATA

Name	Execution Date	
GENERAL ELECTRIC COMPANY	11/02/2018	

RECEIVING PARTY DATA

Name:	AI ALPINE US BIDCO INC.				
Street Address:	CORPORATE TRUST CENTER				
Internal Address:	1209 ORANGE STREET				
City:	WILMINGTON				
State/Country:	DELAWARE				
Postal Code:	19801				

PROPERTY NUMBERS Total: 2

Property Type	Number		
Application Number:	17328964		
Application Number:	16889731		

CORRESPONDENCE DATA

Fax Number: (281)970-4503

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 2819704545

Email: docket@fyiplaw.com, swanson@fyiplaw.com, howell@fyiplaw.com

Correspondent Name: FLETCHER YODER C/O INNIO

Address Line 1: P.O. BOX 692289

Address Line 4: HOUSTON, TEXAS 77269-2289

ATTORNEY DOCKET NUMBER:	INIO:0114-1;-2		
NAME OF SUBMITTER:	TAIT R. SWANSON		
SIGNATURE: /Tait R. Swanson, Reg. No. 48,226/			
DATE SIGNED:	05/28/2021		

Total Attachments: 103

PATENT REEL: 056447 FRAME: 0556

506690041

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Confirmation Receipt

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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GENERAL ELECTRIC COMPANY	11/02/2018

RECEIVING PARTY DATA

AI ALPINE US BIDCO LLC
CORPORATE TRUST CENTER
1209 ORANGE STREET
WILMINGTON
DELAWARE
19801

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	17328964
Application Number:	16889731

CORRESPONDENCE DATA

Fax Number: (281)970-4503

PATENT REEL: 056447 FRAME: 0560/2021, 8:35 PM Phone: 2819704545

Email: docket@fyiplaw.com, swanson@fyiplaw.com, howell@fyiplaw.com Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

FLETCHER YODER C/O INNIO **Correspondent Name:**

Address Line 1: P.O. BOX 692289

Address Line 4: HOUSTON, TEXAS 77269-2289

ATTORNEY DOCKET NUMBER:	INIO:0114-1;-2				
NAME OF SUBMITTER:	TAIT R. SWANSON				
Signature:	/Tait R. Swanson, Reg. No. 48,226/				
Date:	05/24/2021				

Total Attachments: 50

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PATENT

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RECEIPT INFORMATION

EPAS ID: PAT6726579 **Receipt Date:** 05/24/2021

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PATENT

REEL: 056447 FRAME: 05/62/2021, 8:35 PM

NUNC PRO TUNC CORRECTIVE INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT

This NUNC PRO TUNC CORRECTIVE INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT ("Corrective Assignment"), executed as of the date of last signature herein and effective munc pro tunc as of November 2, 2018 ("Effective Date"), is by and between GENERAL ELECTRIC COMPANY, a New York corporation, with an office located at 1 River Road, Schenectady, New York 12345, United States of America ("Assignor") and AI ALPINE US BIDCO INC., a Delaware corporation (file number 6921086) whose registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, City of Wilmington, County of New Castle, US-19801 Delaware, United States of America ("Assignee").

WHEREAS, Assignor and Assignee, among others, are party to that certain Share Purchase Agreement, dated as of 25 June, 2018 ("Purchase Agreement");

WHEREAS, under the terms of the Purchase Agreement, Assignor agreed to deliver and transfer to Assignee all of their right, title and interest in, to and under: (i) the patents and patent applications set forth on Exhibit A hereto, including all reissues, divisionals, continuations, continuations in-part, extensions, renewals and reexaminations thereof ("Patents"); (ii) the trademark registrations and trademark applications set forth on Exhibit B hereto, including all renewals and extensions thereof ("Trademarks"); and (iii) the domain names set forth on Exhibit C hereto ("Domain Names"; the Patents, Trademarks and Domain Names, collectively, the "Assigned IP"), and to execute this Assignment;

WHEREAS, the Transferred Entities (as defined in the Purchase Agreement) possessed and exploited economic rights in the Assigned IP through the operation of the Business (as defined in the Purchase Agreement) prior to the Effective Date;

WHEREAS, under the terms of the Purchase Agreement, Assignee (Buyer 1, as defined under the Purchase Agreement) agreed to acquire the Assigned IP from Assignor; and

WHEREAS, Assignor and Assignee executed an Intellectual Property Assignment Agreement effective November 2, 2018, which (i) identified a different office address of Assignor, (ii) identified Assignee in-part as a limited liability company instead of a corporation, (iii) did not schedule the application number relating to Japanese patent application no. 2018-219240 (257091-JP-3), and (iv) did not include PCT/US18/66623 ("System and Method of Spark Plug Tagging and Identification") as Assigned IP. All such points are corrected herein.

NOW, THEREFORE, for good and valuable consideration, including the consideration reflected in the Purchase Agreement, the sufficiency and receipt of which is hereby acknowledged, Assignor and Assignee hereby agree in this Corrective Assignment as follows:

1. Assignor hereby assigns, transfers and conveys to Assignee its entire worldwide right, title and interest in, to and under the Assigned IP along with (i) all rights and privilege arising under applicable law with respect to Assignor's use of any of the Assigned IP; (ii) the goodwill of the business symbolized by each of the Trademarks, together with the goodwill of the business

relating to the goods or services in respect of which the Trademarks are registered or used; and (iii) all rights of action pertaining to the Assigned IP, including, without limitation, all rights in and to all causes of action (whether in law or in equity) with respect thereto, the right to sue, counterclaim, and recover for past, present and future infringement of the Assigned IP or any rights relating to the Assigned IP, the right to secure registration of the Assigned IP and of this Assignment, the right to initiate and prosecute other proceedings before all government and administrative bodies with respect to the Assigned IP, and the right to claim priority, file foreign counterparts, and any and all other proceeds of any of the foregoing, including, but not limited to, all income, royalties, damages and payments now or hereafter due or payable with respect thereto.

- 2. This Assignment is binding upon, and inures to the benefit of, the parties hereto and their respective legal representatives, successors and assigns. It is understood that any finding of invalidity of one assignment as effected hereby shall not affect the assignment of other Assigned IP. All questions concerning the construction, validity and interpretation of this Assignment and the performance of the obligations imposed by this Assignment shall be governed by, and construed in accordance with, the laws of the State of New York without regard to any choice of law or conflict of law provision or rule that would cause the application of the laws of any other jurisdiction.
- 3. Upon reasonable request by Assignee, Assignor will execute additional documents and take other actions as may be necessary or desirable to record or memorialize the assignments of the Assigned IP, and to vest in Assignee such right, title and interest in and to the Assigned IP as assigned and transferred to Assignee hereunder; provided that, as between the parties hereto, Assignee shall be responsible for the filing of such documents and other instruments that may be necessary or desirable to record or memorialize Assignee's right, title and interest in and to the Domain Names (including, without limitation, with any applicable domain name registrar). For the avoidance of doubt, transfer of any web sites using any of the Domain Names shall be pursuant to the terms of the Transition Services Agreement (as that term is defined in the Purchase Agreement).
- 4. Assignor hereby authorizes and requests the officials of the United States Patent and Trademark Office, and the corresponding entities or agencies in any applicable foreign jurisdiction, and the applicable domain name registrar, to record Assignee as assignee and owner of the entire right, title and interest in, to and under the Assigned IP.
- 5. No waiver, modification or change of any of the provisions of this Assignment shall be valid unless in writing and signed by the party against whom such claimed waiver, modification or change is sought to be enforced.
- 6. This Assignment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Assignment delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Assignment.

IN WITNESS WHEREOF, the parties hereto, through their authorized representatives, have caused this Assignment to be duly executed and delivered as of the lastdated signature herein.

Executed at Atlanta Georgia (U.S. on this 5th day of April , 2019.

As Assignor:

GENERAL ELECTRIC COMPANY

By: Pale LANDORAFF

Title: Senior Intellegand Proporty Cousel, GEPONOr

[Signature Page to the Nunc Pro Tunc Corrective Intellectual Property Assignment Agreement]

IN WITNESS WHEREOF, the parties hereto, through their authorized representatives, have caused this Assignment to be duly executed and delivered as of the last-dated signature herein.

Executed at Boston, MA (USA) /43 m, on this 5th day of 2019

As Assignee:

AI ALPINE US BIDCO/INC

Name: Wichael TRistains

Title: 280

[Signature Page to the Nunc Pro Tunc Corrective Intellectual Property Assignment Agreement]

EXHIBIT A

PATENTS

The patents and patent applications listed below:

Title	Country	Filed Date	App. Number	Grant Date	Patent
					Number
SYSTEM AND METHOD	Australia	2014-09-30	2014240195	2017-12-07	2014240195
FOR CONTROL OF					
EXHAUST GAS					
RECIRCULATION EGR					
UTILIZING PROCESS					
TEMPERATURES					
METHODS AND SYSTEMS	Australia	2015-12-18	2015271937		
TO CHARACTERIZE NOISES					
SENSED BY A KNOCK					
SENSOR					
EXHAUST	Austria	2015-04-13	15163404.5	2018-02-28	2933449
AFTERTREATEMENT					
SYSTEM WITH CATALYTIC					
DEACTIVATION					
MONITORING					
SPARK PLUG ELECTRODE	Austria	2015-10-05	15188410.3	2018-07-04	3006163
GAP SETTING TOOL					
METHOD AND SYSTEM OF	Austria	2016-02-05	16154442.4	2018-04-18	3054134
DIAGNOSING A KNOCK					
SENSOR					
SYSTEM AND METHOD	Austria	2016-01-28	16153229.6	2017-12-06	3051104
FOR DETECTING					
OPERATING EVENTS OF AN					
ENGINE					
METHODS AND SYSTEMS	Austria	2015-12-21	15201539.2	2017-10-25	3040540
TO CHARACTERIZE NOISES					
SENSED BY A KNOCK					
SENSOR					
SYSTEMS AND METHODS	Austria	2015-12-10	15199342.5	2018-10-03	3032076
FOR MODEL BASED					
CONTROL OF CATALYTIC					
CONVERTER SYSTEMS					
SYSTEM AND METHOD	Austria	2016-04-13	16165045.2	2018-10-03	3081776
FOR INJECTION CONTROL					
OF UREA IN SELECTIVE					
CATALYST REDUCTION					
SYSTEM AND METHOD	Austria	2016-04-13	16165045.2	2018-10-03	3081776
FOR INJECTION CONTROL					

Title	Country	Filed Date	App. Number	Grant Date	Patent
	W.				Number
OF UREA IN SELECTIVE					
CATALYST REDUCTION					
ELECTROMAGNETIC	Brazil	2013-06-27	102013016638		
BRAKING SYSTEMS AND			-3		
METHODS					
Rich Burn Internal Combustion	Brazil	2014-02-05	102014002821		
Engine Catalyst Control			-8		
SYSTEM AND PROGRAM	Brazil	2014-12-10	102014030958		
PRODUCT FOR			-6		
CONTROLLING EXHAUST					
GAS TEMPERATURE OF					
ENGINE SYSTEM					
POWER GENERATION	Brazil	2014-11-10	102014028062		
SYSTEM AND METHOD			-6		
WITH FAULT RIDE					
THROUGH CAPABILITY					
ONBOARD CATALYST	Brazil	2014-11-17	102014028613		
HEALTH MONITORING			-6		
AND CONTROL SYSTEM					
ADAPTATION IN					
INTERNAL COMBUSTION					
ENGINES					
PISTON ASSEMBLY FOR A	Brazil	2015-06-05	102015013117		
RECIPROCATING ENGINE			-8		
PISTON ASSEMBLY FOR A	Brazil	2015-06-05	102015013120		
RECIPROCATING ENGINE			-8		
SYSTEM FOR	Brazil	2015-08-20	102015020090		
CONTROLLING DEPOSITS			-0		
ON CYLINDER LINER AND					
PISTON OF					
RECIPROCATING ENGINE					
PISTON ASSEMBLY FOR A	Brazil	2015-06-05	102015013118		
RECIPROCATING ENGINE			-6		
PISTON WITH REDUCED	Brazil	2015-01-13	10 2015		
TOP LAND HEIGHT AND			000764-7		
TIGHT TOP LAND PISTON					
PROFILE					
SYSTEMS AND METHODS	Brazil	2015-01-12	10 2015		
FOR CONTROLLING			000662-4		
EMISSIONS IN AN					
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					

Title	Country	Filed Date	App. Number	Grant Date	Patent
					Number
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
SYSTEMS AND METHODS	Brazil	2015-12-10	102015030853		
FOR MODEL BASED			-1		
CONTROL OF CATALYTIC					
CONVERTER SYSTEMS					
POWER GENERATION	Brazil	2015-12-10	102015030863		
SYSTEM AND METHOD			-9		
WITH RESISTIVE BRAKING					
CAPABILITY					
SYSTEMS AND METHODS	Brazil	2016-02-25	102016004088		
FOR CONTROLLING			-4		
AFTERTREATMENT					
SYSTEMS					
SYSTEM AND METHOD	Brazil	2015-12-30	102015032948		
FOR LOCATING ENGINE			-2		
NOISE					
KNOCK SENSOR SYSTEMS	Brazil	2016-04-06	102016007574		
AND METHODS FOR			-2		
DETECTION OF					
COMPONENT CONDITIONS					
SENSOR FOR	Brazil	2015-12-22	102015032241		
DETERMINING ENGINE			-0		
CHARACTERISTICS					
METHOD AND SYSTEM TO	Brazil	2016-02-16	102016003195		
DETERMINE LOCATION OF			-8		
PEAK FIRING PRESSURE					
SYSTEM AND METHOD	Brazil	2016-01-06	102016000207		
FOR DETECTING			-9		
RECIPROCATING DEVICE					
ABNORMALITIES					
UTILIZING STANDARD					
QUALITY CONTROL					
TECHNIQUES					
SYSTEM AND METHOD	Brazil	2016-02-01	102016002225		
FOR MODEL BASED AND			-8		
MAP BASED THROTTLE					
POSITION DERIVATION					
AND MONITORING					
INDUCTION GENERATOR	Brazil	2015-10-20	102015026557		
SYSTEM WITH A GRID-			-3		
LOSS RIDE-THROUGH					
CAPABILITY					
L	1	1	1	1	1

Title	Country	Filed Date	App. Number	Grant Date	Patent
	-				Number
SYSTEMS AND METHODS	Brazil	2016-02-26	102016004249		
TO DISTINGUISH ENGINE			-6		
KNOCK FROM PISTON					
SLAP					
METHODS AND SYSTEMS	Brazil	2016-02-05	102016002606		
TO DERIVE KNOCK			-7		
SENSOR CONDITIONS					
SYSTEM AND METHOD	Brazil	2016-01-28	102016001908		
FOR DETECTING			-7		
OPERATING EVENTS OF AN					
ENGINE					
PISTON ASSEMBLY FOR A	Brazil	2015-12-29	102015032852		
RECIPROCATING ENGINE			-4		
SYSTEMS AND METHODS	Brazil	2016-04-06	102016007569		
FOR ESTIMATING A TIME			-6		
OF AN ENGINE EVENT					
METHODS AND SYSTEMS	Brazil	2016-02-11	102016002862		
TO DERIVE ENGINE			-0		
COMPONENT HEALTH					
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	Brazil	2016-03-18	102016005985		
FOR LOCATING AN ENGINE			-2		
EVENT					
MANIFOLD GASKET	Canada	2012-08-02	2784423		
ASSEMBLY					
Rich Burn Internal Combustion	Canada	2014-01-30	2841288		
Engine Catalyst Control					
LAMBDA VIRTUAL	Canada	2016-07-05	2994531		
SENSOR SYSTEMS AND					
METHODS FOR A					
COMBUSTION ENGINE					
SYSTEM AND METHOD	Canada	2014-10-02	2867223		
FOR CONTROL OF					
EXHAUST GAS					
RECIRCULATION EGR					
UTILIZING PROCESS					
TEMPERATURES					
SYSTEM AND PROGRAM	Canada	2014-11-27	2874484		
PRODUCT FOR					
CONTROLLING EXHAUST					
GAS TEMPERATURE OF					
ENGINE SYSTEM					

Title	Country	Filed Date	App. Number	Grant Date	Patent
					Number
POWER GENERATION	Canada	2014-11-06	2869806		
SYSTEM AND METHOD					
WITH FAULT RIDE					
THROUGH CAPABILITY					
ONBOARD CATALYST	Canada	2014-11-13	2870781		
HEALTH MONITORING					
AND CONTROL SYSTEM					
ADAPTATION IN					
INTERNAL COMBUSTION					
ENGINES					
POWER INTEGRATED	Canada	2015-02-12	2881669		
SYSTEM AND METHOD					
FOR DRILLING RIG AND					
OIL/GAS PRODUCTION					
EQUIPMENT					
CYLINDER HEAD	Canada	2016-05-26	2988569		
ACCELERATION					
MEASUREMENT FOR					
VALVE TRAIN					
DIAGNOSTICS SYSTEM					
AND METHOD					
SYSTEM AND METHOD	Canada	2015-08-06	2994691		
FOR ENGINE CONTROL					
SYSTEMS AND METHODS	Canada	2015-01-08	2877006		
FOR CONTROLLING					
EMISSIONS IN AN					
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
SYSTEMS AND METHODS	Canada	2016-02-18	2921267		
FOR CONTROLLING					
AFTERTREATMENT					
SYSTEMS					
KNOCK SENSOR SYSTEMS	Canada	2016-04-14	2927277		
AND METHODS FOR					
DETECTION OF					
COMPONENT CONDITIONS					
SENSOR FOR	Canada	2015-12-17	2915466		
DETERMINING ENGINE					
CHARACTERISTICS					
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	

Country	Filed Date	App. Number	Grant Date	Patent
J		-FF		Number
Canada	2016-02-11	2920486		
Canada	2015-12-30	2916466		
Canada	2016-06-28	2989640		
Canada	2016-02-25	2921934		
Canada	2016-01-28	2919242		
Canada	2016-01-21	2918914		
Canada	2015-12-18	2915789		
Canada	2016-03-18	2981258		
Canada	2016-03-24	2924930		
Canada	2016-01-28	2919241		
	Canada Canada Canada Canada Canada Canada Canada	Canada 2016-02-11 Canada 2015-12-30 Canada 2016-06-28 Canada 2016-02-25 Canada 2016-01-28 Canada 2016-01-21 Canada 2015-12-18 Canada 2016-03-18 Canada 2016-03-24	Canada 2016-02-11 2920486 Canada 2015-12-30 2916466 Canada 2016-06-28 2989640 Canada 2016-02-25 2921934 Canada 2016-01-28 2919242 Canada 2016-01-21 2918914 Canada 2015-12-18 2915789 Canada 2016-03-18 2981258 Canada 2016-03-24 2924930	Canada 2016-02-11 2920486 Canada 2015-12-30 2916466 Canada 2016-06-28 2989640 Canada 2016-02-25 2921934 Canada 2016-01-28 2919242 Canada 2016-01-21 2918914 Canada 2015-12-18 2915789 Canada 2016-03-18 2981258 Canada 2016-03-24 2924930

Title	Country	Filed Date	App. Number	Grant Date	Patent
					Number
SYSTEM AND METHOD	Canada	2016-03-10	2923277		
FOR LOCATING AN ENGINE					
EVENT					
SYSTEM AND METHOD	Canada	2016-03-30	2925371		
FOR INJECTION CONTROL					
OF UREA IN SELECTIVE					
CATALYST REDUCTION					
SYSTEM AND METHOD	Canada	2016-06-08	2989594		
FOR OXIDANT					
TEMPERATURE CONTROL					
DUAL FUEL SYSTEM FOR A	Canada	2016-06-23	2991405		
COMBUSTION ENGINE					
RECIPROCATING	Canada	2017-10-05	2981535		
COMPRESSOR FLOW					
SENSING					
JOINT-LESS CONTNUOUS	Canada	2017-11-30	2987167		
JOURNAL BEARINGS					
TURBINE EXHAUST	China	2010-08-27	201010272882	2014-11-19	20101027288
RECIRCULATION SYSTEM			.9		2.9
AND METHOD					
ELECTROMAGNETIC	China	2013-06-28	201310263947	2017-06-13	103516272
BRAKING SYSTEMS AND			.7		
METHODS					
VARIABLE THICKNESS	China	2013-06-20	201310246012	2018-06-12	103511112
COATING FOR CYLINDER			.8		
LINER					
SYSTEM AND METHOD OF	China	2016-09-16	201680079344		
EXHAUST GAS			.3		
RECIRCULATION	G1.				10100001
SYSTEM FOR COOLING	China	2014-03-04	201410075996	2018-09-18	104033231
POWER GENERATION			.2		
SYSTEM	G1 :	2012 00 00	00101001070	2017 10 02	102052062
MANIFOLD GASKET	China	2012-08-09	201210281970	2017-10-03	102953863
ASSEMBLY	C1 :	2014 02 07	.4		
Rich Burn Internal Combustion	China	2014-02-07	201410044952		
Engine Catalyst Control	C1 :	2014 11 21	.3		
EMISSIONS CONTROL IN	China	2014-11-21	201410674311		
DIESEL ENGINES	C1:	2014 10 10	.6	2019 05 20	104564272
SYSTEM AND METHOD	China	2014-10-10	201410532349	2018-05-29	104564373
FOR CONTROL OF			.X		
EXHAUST GAS					
RECIRCULATION EGR					
UTILIZING PROCESS					
TEMPERATURES	1		ĺ		

Title	Country	Filed Date	App. Number	Grant Date	Patent
			11		Number
SYSTEM AND PROGRAM	China	2014-12-11	201410766769		
PRODUCT FOR			.4		
CONTROLLING EXHAUST					
GAS TEMPERATURE OF					
ENGINE SYSTEM					
GASEOUS REDUCTANT	China	2014-10-24	201410573905		
INJECTION CONTROL			.8		
SYSTEM					
POWER GENERATION	China	2014-11-20	201410666181		
SYSTEM AND METHOD			.1		
WITH FAULT RIDE					
THROUGH CAPABILITY					
SYSTEM AND METHOD	China	2013-07-18	201310303270		
FOR POWER GENERATION			.5		
ONBOARD CATALYST	China	2014-11-19	201410663180		
HEALTH MONITORING			.1		
AND CONTROL SYSTEM					
ADAPTATION IN					
INTERNAL COMBUSTION					
ENGINES					
Systems and Methods for	China	2014-09-26	201410501113		
Monitoring Catalyst			.X		
Deactivation and Controlling an					
Air/Fuel Ratio					
POWER INTEGRATED	China	2014-02-18	201410054131		
SYSTEM AND METHOD			.8		
FOR DRILLING RIG AND					
OIL/GAS PRODUCTION					
EQUIPMENT	C4.1				
PISTON ASSEMBLY FOR A	China	2015-06-08	201510307846		
RECIPROCATING ENGINE	C1 :	2015 06 00	.4		
PISTON ASSEMBLY FOR A	China	2015-06-08	201510307887		
RECIPROCATING ENGINE	C1 :	2015 00 21	.3		
SYSTEM FOR	China	2015-08-21	201510516803		
CONTROLLING DEPOSITS			.7		
ON CYLINDER LINER AND					
PISTON OF					
RECIPROCATING ENGINE PISTON ASSEMBLY FOR A	China	2015-06-05	201510301908		
RECIPROCATING ENGINE	Cilina	2013-00-03			
BASE-FRAME ASSEMBLY	China	2016-05-12	201610311144		
	Cillia	2010-03-12			
FOR A COMBUSTION ENGINE			.8		
	China	2015-01-14	201510017775		
PISTON WITH REDUCED	Спша	2013-01-14	<u> 20131001///3</u>		

Title	Country	Filed Date	App. Number	Grant Date	Patent
TOD LAND HEIGHT AND			4		Number
TOP LAND HEIGHT AND TIGHT TOP LAND PISTON			.4		
PROFILE					
	China	2015 01 14	201510017707		
SYSTEMS AND METHODS	Cnina	2015-01-14	201510017707		
FOR CONTROLLING EMISSIONS IN AN			.8		
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
CONDITION BASED	China	2016-03-04	201610123829		
ENGINE PARTS	Cillia	2010-03-04	.X		
MONITORING					
SYSTEM AND METHOD	China	2015-07-24	201510440604		
FOR IMPROVING	Cillia	2013-07-24	.2		
RESPONSE TIME OF A			.2		
BRAKING UNIT					
SYSTEMS AND METHODS	China	2015-12-11	201511036234		
FOR MODEL BASED	Cilina	2019 12 11	.2		
CONTROL OF CATALYTIC					
CONVERTER SYSTEMS					
DRILLING SYSTEM AND	China	2014-06-18	201410272958		
POWER SUPPLY METHOD			.6		
SPARK PLUG ELECTRODE	China	2015-10-08	201510643403		
GAP SETTING TOOL			.2		
POWER GENERATION	China	2015-12-11	201510912307		
SYSTEM AND METHOD			.3		
WITH RESISTIVE BRAKING					
CAPABILITY					
SYSTEMS AND METHODS	China	2016-03-02	201610116846		
FOR CONTROLLING			.0		
AFTERTREATMENT					
SYSTEMS					
SYSTEM AND METHOD	China	2015-12-31	201511036326		
FOR LOCATING ENGINE			.0		
NOISE					
KNOCK SENSOR SYSTEMS	China	2016-04-22	201610253130		
AND METHODS FOR			.5		
DETECTION OF					
COMPONENT CONDITIONS					
SENSOR FOR	China	2016-01-08	201610011336		

Title	Country	Filed Date	App. Number	Grant Date	Patent
					Number
DETERMINING ENGINE			.7		
CHARACTERISTICS					
METHOD AND SYSTEM TO	China	2016-02-19	201610092672		
DETERMINE LOCATION OF			.9		
PEAK FIRING PRESSURE					
SYSTEM AND METHOD	China	2016-01-07	201610223627		
FOR DETECTING			.2		
RECIPROCATING DEVICE					
ABNORMALITIES					
UTILIZING STANDARD					
QUALITY CONTROL					
TECHNIQUES					
SYSTEM AND METHOD	China	2016-02-04	201610078918		
FOR MODEL BASED AND			7		
MAP BASED THROTTLE					
POSITION DERIVATION					
AND MONITORING					
INDUCTION GENERATOR	China	2015-10-20	201510678495		
SYSTEM WITH A GRID-		2010 10 20	.8		
LOSS RIDE-THROUGH					
CAPABILITY					
SYSTEMS AND METHODS	China	2016-03-11	201610138320		
TO DISTINGUISH ENGINE		2010 05 11	.2		
KNOCK FROM PISTON			.2		
SLAP					
SYSTEM AND METHOD	China	2015-12-31	201511016005		
FOR REGULATING	Ciiiia	2013-12-31	.4		
EXHAUST GAS					
RECIRCULATION IN AN					
ENGINE					
METHODS AND SYSTEMS	China	2016-02-05	201610081794		
TO DERIVE KNOCK	Cinna	2010-02-03	.8		
SENSOR CONDITIONS			.0		
SYSTEM AND METHOD	China	2016-01-29	201610264664		
FOR DETECTING	Cillia	2010-01-29	1.8		
OPERATING EVENTS OF AN			.0		
ENGINE					
METHODS AND SYSTEMS	China	2015-12-31	201511014250		
TO CHARACTERIZE NOISES	Cillia	2013-12-31	1		
SENSED BY A KNOCK			. 1		
SENSOR					
KNOCK SENSOR NETWORK	China	2016-03-18	201680032117		
SYSTEMS AND METHODS	Cillia	2010-03-18	1.5		
FOR CHARACTERIZING	1				

Title	Country	Filed Date	App. Number	Grant Date	Patent
			1.1		Number
NOISES					
PISTON ASSEMBLY FOR A	China	2016-01-12	201610017155		
RECIPROCATING ENGINE			.5		
SYSTEMS AND METHODS	China	2016-04-07	201610212034		
FOR ESTIMATING A TIME			.6		
OF AN ENGINE EVENT					
METHODS AND SYSTEMS	China	2016-02-05	201610264663		
TO DERIVE ENGINE			.3		
COMPONENT HEALTH					
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	China	2016-03-24	201610172512		
FOR LOCATING AN ENGINE			.5		
EVENT					
SYSTEM AND METHOD	China	2016-04-14	201610229670		
FOR INJECTION CONTROL			.X		
OF UREA IN SELECTIVE					
CATALYST REDUCTION					
SYSTEM AND METHOD	China	2015-08-10	201580082360		
FOR GENERATOR			.3		
BRAKING USING					
LAMINATED BRAKE					
COMPONENTS					
DUAL FUEL SYSTEM FOR A	China	2016-06-23	201680040832		
COMBUSTION ENGINE			.3		
SYSTEMS AND METHODS	China	2016-06-24	201680038696		
FOR DETECTION OF			.4		
ENGINE COMPONENT					
CONDITIONS VIA					
EXTERNAL SENSORS					
METHODS TO ADAPT AIR-	China	2016-09-16	201680079064		
FUEL A/F CONTROLS FOR			.2		
CATALYST AGING					
RECIPROCATING	China	2017-10-11	201710941548		
COMPRESSOR FLOW			.X		
SENSING					
JOINT-LESS CONTNUOUS	China	2017-12-15	201711360707		
JOURNAL BEARINGS			.3		
Optimized cylinder head	China				
exhaust port and water-cooled					
exhaust valve guide for					
maximum cooling of the guide					
SYSTEM AND METHOD	China	2018-09-18	201811087260		

Title	Country	Filed Date	App. Number	Grant Date	Patent
					Number
FOR COMPRESSOR			.1		
SCHEDULING	-	20000011	00==11511		
SYSTEM AND METHOD	European	2008-06-16	08771164.4		
FOR RECOVERING WASTE	Patent				
HEAT					
SPIRAL RECUPERATIVE	European	2010-11-16	10191410.9		
HEAT EXCHANGING	Patent				
SYSTEM					
SYSTEM AND METHOD	European	2011-06-09	11727078.5		
FOR GENERATING AND	Patent				
STORING TRANSIENT					
INTEGRATED ORGANIC					
RANKINE CYCLE ENERGY					
AUTO OPTIMIZING	European	2011-02-11	11706673.8		
CONTROL SYSTEM FOR	Patent				
ORGANIC RANKINE CYCLE					
PLANTS					
ELECTROMAGNETIC	European	2013-06-25	13173645.6		
BRAKING SYSTEMS AND	Patent				
METHODS					
INTEGRATION OF WASTE	European	2012-04-20	12164863.8		
HEAT FROM CHARGE AIR	Patent				
COOLING INTO A					
CASCADED ORGANIC					
RANKINE CYCLE SYSTEM					
Method of attachment of	European	2013-01-23	13152344.1		
precious metal electrodes to	Patent				
spark plugs					
METHOD OF PRODUCING	European	2013-01-23	13152345.8		
AN ELECTRODE SUPPORT	Patent	2010 01 20	10102010.0		
USING BRAZING					
SYSTEM FOR COOLING	European	2014-02-25	14156576.2		
POWER GENERATION	Patent	2011 02 23	11100070.2		
SYSTEM					
GAS DOSAGE CONTROL	European	2014-05-07	14167312.9		
FOR GAS ENGINE	Patent	2011 05 07	11107512.9		
Rich Burn Internal Combustion	European	2014-02-04	14153733.2		
Engine Catalyst Control	Patent	2014-02-04	14133733.2		
LAMBDA VIRTUAL	European	2016-07-05	16747652.2		
SENSOR SYSTEMS AND	Patent	2010-07-03	10747032.2		
METHODS FOR A	atent				
COMBUSTION ENGINE					
	European	2014 10 07	14197009 1		
SYSTEM AND METHOD	European	2014-10-07	14187998.1		
FOR CONTROL OF	Patent				

Title	Country	Filed Date	App. Number	Grant Date	Patent
1			-FF		Number
EXHAUST GAS					
RECIRCULATION EGR					
UTILIZING PROCESS					
TEMPERATURES					
SYSTEM AND PROGRAM	European	2014-12-10	14197241.4		
PRODUCT FOR	Patent				
CONTROLLING EXHAUST					
GAS TEMPERATURE OF					
ENGINE SYSTEM					
GASEOUS REDUCTANT	European	2014-10-17	14189312.3		
INJECTION CONTROL	Patent				
SYSTEM					
POWER GENERATION	European	2014-11-19	14193938.9		
SYSTEM AND METHOD	Patent				
WITH FAULT RIDE					
THROUGH CAPABILITY					
ONBOARD CATALYST	European	2014-11-17	14193523.9		
HEALTH MONITORING	Patent				
AND CONTROL SYSTEM					
ADAPTATION IN					
INTERNAL COMBUSTION					
ENGINES					
PISTON ASSEMBLY FOR A	European	2015-05-29	15169854.5		
RECIPROCATING ENGINE	Patent				
CYLINDER HEAD	European	2016-05-26	16732026.6		
ACCELERATION	Patent				
MEASUREMENT FOR					
VALVE TRAIN					
DIAGNOSTICS SYSTEM					
AND METHOD					
PISTON ASSEMBLY FOR A	European	2015-06-04	15170678.5		
RECIPROCATING ENGINE	Patent	2017.00.17	1.51015060		
SYSTEM FOR	European	2015-08-17	15181236.9		
CONTROLLING DEPOSITS	Patent				
ON CYLINDER LINER AND					
PISTON OF					
RECIPROCATING ENGINE		2015 00 06	15750066.4		
SYSTEM AND METHOD	European	2015-08-06	15753266.4		
FOR ENGINE CONTROL	Patent	2015 02 15	15150000		
EMISSION CONTROL IN	European	2015-03-16	15159209.4		
RICH BURN NATURAL GAS	Patent				
ENGINES	Г	2015 06 04	15170677		
PISTON ASSEMBLY FOR A	European	2015-06-04	15170677.7		
RECIPROCATING ENGINE	Patent				

Title	Country	Filed Date	App. Number	Grant Date	Patent
	00	i neu Dute	i pp. : umber	J. W. Dute	Number
BASE-FRAME ASSEMBLY	European	2016-05-10	16169002.9		
FOR A COMBUSTION	Patent				
ENGINE					
PISTON WITH REDUCED	European	2015-01-13	15151029.4		
TOP LAND HEIGHT AND	Patent				
TIGHT TOP LAND PISTON					
PROFILE					
SYSTEMS AND METHODS	European	2016-09-16	16770646.4		
FOR IN-CYLINDER	Patent				
PRESSURE ESTIMATION					
USING PRESSURE WAVE					
MODELING					
CONDITION BASED	European	2016-02-26	16157724.2		
ENGINE PARTS	Patent				
MONITORING					
SYSTEM AND METHOD	European	2015-07-22	15177889.1		
FOR IMPROVING	Patent				
RESPONSE TIME OF A					
BRAKING UNIT					
SYSTEMS AND METHODS	European	2015-12-10	15199342.5	2018-10-03	3032076
FOR MODEL BASED	Patent				
CONTROL OF CATALYTIC					
CONVERTER SYSTEMS					
EXHAUST	European	2015-04-13	15163404.5	2018-02-28	2933449
AFTERTREATEMENT	Patent				
SYSTEM WITH CATALYTIC					
DEACTIVATION					
MONITORING					
SYSTEMS AND METHODS	European	2016-10-20	16794786.0		
FOR DETECTING	Patent				
ANOMALIES AT IN-					
CYLINDER PRESSURE					
SENSORS					
SPARK PLUG ELECTRODE	European	2015-10-05	15188410.3	2018-07-04	3006163
GAP SETTING TOOL	Patent				
POWER GENERATION	European	2015-11-30	15197002.7		
SYSTEM AND METHOD	Patent				
WITH RESISTIVE BRAKING					
CAPABILITY					
SYSTEMS AND METHODS	European	2016-03-01	16158069.1		
FOR CONTROLLING	Patent				
AFTERTREATMENT					
SYSTEMS	<u> </u>	2015 12 15	15000600		
SYSTEM AND METHOD	European	2015-12-17	15200682.1		

Title	Country	Filed Date	App. Number	Grant Date	Patent
1			- P.B	J	Number
FOR LOCATING ENGINE	Patent				
NOISE					
KNOCK SENSOR SYSTEMS	European	2016-04-19	16166053.5		
AND METHODS FOR	Patent				
DETECTION OF					
COMPONENT CONDITIONS					
SENSOR FOR	European	2016-01-05	16150239.8		
DETERMINING ENGINE	Patent				
CHARACTERISTICS					
METHOD AND SYSTEM TO	European	2016-02-17	16156064.4		
DETERMINE LOCATION OF	Patent				
PEAK FIRING PRESSURE					
SYSTEM AND METHOD	European	2016-01-05	16150238.0		
FOR DETECTING	Patent				
RECIPROCATING DEVICE					
ABNORMALITIES					
UTILIZING STANDARD					
QUALITY CONTROL					
TECHNIQUES					
SYSTEM AND METHOD	European	2016-02-02	16153942.4	2018-07-25	3054133
FOR MODEL BASED AND	Patent				
MAP BASED THROTTLE					
POSITION DERIVATION					
AND MONITORING					
INDUCTION GENERATOR	European	2015-10-16	15190243.4		
SYSTEM WITH A GRID-	Patent				
LOSS RIDE-THROUGH					
CAPABILITY					
SYSTEM AND METHOD OF	European	2015-11-27	15196878.1		
COOLING VALVE WITH	Patent				
MATERIAL IN CAVITY					
SYSTEM AND METHOD	European	2016-06-28	16739315.6		
FOR DETECTION OF	Patent				
CHANGES TO					
COMPRESSION RATIO AND					
PEAK FIRING PRESSURE OF					
AN ENGINE					
SYSTEMS AND METHODS	European	2016-03-08	16159267.0		
TO DISTINGUISH ENGINE	Patent				
KNOCK FROM PISTON					
SLAP					
SYSTEM AND METHOD	European	2015-12-22	15201874.3		
FOR REGULATING	Patent				
EXHAUST GAS					

Title Country		App. Number	Grant Date	Patent
	Filed Date	P.B		Number
RECIRCULATION IN AN				
ENGINE				
METHOD AND SYSTEM OF European	2016-02-05	16154442.4	2018-04-18	3054134
DIAGNOSING A KNOCK Patent	2010 02 08	10101112.1		
SENSOR				
KNOCK SENSOR NETWORK European	2016-03-18	16712169.8		
SYSTEMS AND METHODS Patent	2010 05 10	10,1210,0		
FOR CHARACTERIZING				
NOISES				
PISTON ASSEMBLY FOR A European	2016-01-05	16150208.3		
RECIPROCATING ENGINE Patent	2010 01 03	10150200.5		
SYSTEMS AND METHODS European	2016-04-04	16163698.0		
FOR ESTIMATING A TIME Patent	2010 01 01	10103090.0		
OF AN ENGINE EVENT				
SYSTEM AND METHOD European	2016-11-30	16816510.8		
FOR IMPROVED JOURNAL Patent	2010-11-30	10010310.0		
BEARING OPERATIONS				
METHODS AND SYSTEMS European	2016-02-05	16154444.0		
TO DERIVE ENGINE Patent	2010 02 03	10151111.0		
COMPONENT HEALTH				
USING TOTAL HARMONIC				
DISTORTION IN A KNOCK				
SENSOR SIGNAL				
SYSTEM AND METHOD European	2016-03-22	16161757.6		
FOR LOCATING AN ENGINE Patent	2010 03 22	10101757.0		
EVENT				
SYSTEM AND METHOD European	2016-04-13	16165045.2	2018-10-03	3081776
FOR INJECTION CONTROL Patent	2010 0.15	10100010.2		
OF UREA IN SELECTIVE				
CATALYST REDUCTION				
SYSTEM AND METHOD European	2016-06-08	16734080.1		
FOR OXIDANT Patent				
TEMPERATURE CONTROL				
LAMINAR FLOW OF European	2016-10-18	16791481.1		
PISTON COOLING JETS Patent				
SYSTEM AND METHOD European	2016-09-29	16781935.8		
FOR CAMSHAFT Patent				
VIBRATION CONTROL				
SYSTEM AND METHOD European	2015-08-10	15753817.4		
FOR GENERATOR Patent				
BRAKING USING				
LAMINATED BRAKE				
COMPONENTS				
DUAL FUEL SYSTEM FOR A European	2016-06-23	16735969.4		

Title	Country	Filed Date	App. Number	Grant Date	Patent
	N.		11		Number
COMBUSTION ENGINE	Patent				
AN ANNULAR RING	European	2016-09-16	16778524.5		
GROOVE OF A PISTON	Patent				
COATING OF A SYSTEM	European	2016-12-21	16831799.8		
AND AN ASSOCIATED	Patent				
METHOD THEREOF					
SYSTEM FOR COOLING	European	2016-03-31	16719585.8		
ENGINE INTAKE FLOW	Patent				
RECIPROCATING	European	2017-10-11	17195939.8		
COMPRESSOR FLOW	Patent				
SENSING					
JOINT-LESS CONTNUOUS	European	2017-12-07	17205970.1		
JOURNAL BEARINGS	Patent				
TWO-STAGE	European	2017-12-06	17205760.6		
RECIPROCATING	Patent				
COMPRESSOR					
OPTIMIZATION CONTROL					
SYSTEM					
SYSTEM AND METHOD	European	2018-08-10	18188516.1		
FOR PISTON RING	Patent				
PROGNOSTIC					
SYSTEM AND METHOD OF	European	2018-10-24	18202350.7		
VALVE WEAR DETECTION	Patent				
ORGANIC RANKINE CYCLE	Finland	2012-05-03	12166544.2	2016-04-13	2522828
SYSTEMS USING WASTE					
HEAT FROM CHARGE AIR					
COOLING					
Mixing chamber with spiral	Finland	2012-06-07	12171197.2	2016-08-10	2671630
channels					
CYLINDER LINER WITH	Finland	2015-03-30	20155221		
SLOTS					
VARIABLE THICKNESS	France	2013-06-20	13173010.3	2017-08-09	2677152
COATINGS FOR CYLINDER					
LINERS					
EMISSIONS CONTROL IN	France	2014-07-01	14175159.4	2017-12-13	2821609
STATIONARY RICH BURN					
ENGINES					
SYSTEMS AND METHODS	France	2015-01-13	15150923.9	2017-08-16	2894306
FOR CONTROLLING					
EMISSIONS IN AN					
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					

Title	Country	Filed Date	App. Number	Grant Date	Patent
			1.1.		Number
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
EXHAUST	France	2015-04-15	15163722.0	2017-06-14	2933450
AFTERTREATMENT					
SYSTEM WITH AGING					
MONITORING OF AN					
AMMONIA SLIP CATALYST					
METHOD AND SYSTEM	France	2015-12-09	15198666.8	2017-08-16	3032057
FOR CONTROL OF					
EMISSIONS IN EXHAUST					
AFTERTREATMENT					
SYSTEM					
ORGANIC RANKINE CYCLE	Germany	2012-05-03	12166544.2	2016-04-13	60201201696
SYSTEMS USING WASTE	(Federal				0.5
HEAT FROM CHARGE AIR	Republic of)				
COOLING					
VARIABLE THICKNESS	Germany	2013-06-20	13173010.3	2017-08-09	60201302466
COATINGS FOR CYLINDER	(Federal				2.9
LINERS	Republic of)				
SYSTEMS AND METHODS	Germany				
FOR SPARK TIMING	(Federal				
RETARDATION	Republic of)				
Mixing chamber with spiral	Germany	2012-06-07	12171197.2	2016-08-10	2671630
channels	(Federal				
	Republic of)				
SYSTEM AND METHOD OF	Germany	2016-09-16	112016004875		
EXHAUST GAS	(Federal		.0		
RECIRCULATION	Republic of)				
MANIFOLD GASKET	Germany	2012-08-07	102012107220		
ASSEMBLY	(Federal		.5		
	Republic of)				
EMISSIONS CONTROL IN	Germany	2014-07-01	14175159.4	2017-12-13	60201401840
STATIONARY RICH BURN	(Federal				0.6
ENGINES	Republic of)				
SYSTEMS AND METHODS	Germany	2015-01-13	15150923.9	2017-08-16	60201500406
FOR CONTROLLING	(Federal				7.8
EMISSIONS IN AN	Republic of)				
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					

Title	Country	Filed Date	App. Number	Grant Date	Patent
A CCEMIDI V					Number
ASSEMBLY		0015 04 15	15162522	2017.06.14	60201500206
EXHAUST AFTERTREATMENT	Germany (Federal	2015-04-15	15163722.0	2017-06-14	60201500306 5.6
SYSTEM WITH AGING	1				3.0
MONITORING OF AN	Republic of)				
AMMONIA SLIP CATALYST					
CYLINDER LINER WITH	Common	2015-04-07	102015105222		
	Germany	2015-04-07	102015105223		
SLOTS	(Federal		. /		
DDH I ING CYCTEM AND	Republic of)	2015 06 19	102015100722		
DRILLING SYSTEM AND	Germany	2015-06-18	102015109723		
POWER SUPPLY METHOD	(Federal		.0		
	Republic of)	2017.04.12	1.7.1.60.1.7	2010 02 20	6000150000
EXHAUST	Germany	2015-04-13	15163404.5	2018-02-28	60201500822
AFTERTREATEMENT	(Federal				8.1
SYSTEM WITH CATALYTIC	Republic of)				
DEACTIVATION					
MONITORING					
SPARK PLUG ELECTRODE	Germany	2015-10-05	15188410.3	2018-07-04	60201501294
GAP SETTING TOOL	(Federal				3.1
	Republic of)				
METHODS AND SYSTEMS	Germany	2016-06-08	112016002802		
TO CONTROL EXHAUST	(Federal		.4		
GAS RECIRCULATION	Republic of)				
METHOD AND SYSTEM	Germany	2015-12-09	15198666.8	2017-08-16	60201400415
FOR CONTROL OF	(Federal				9.3
EMISSIONS IN EXHAUST	Republic of)				
AFTERTREATMENT					
SYSTEM					
SYSTEM AND METHOD	Germany	2016-05-04	112016002038		
FOR DETERMINING KNOCK	(Federal		.4		
MARGIN FOR MULTI-	Republic of)				
CYLINDER ENGINES					
METHOD AND SYSTEM OF	Germany	2016-02-05	16154442.4	2018-04-18	60201600242
DIAGNOSING A KNOCK	(Federal				2.5
SENSOR	Republic of)				
SYSTEM AND METHOD	Germany	2016-01-28	16153229.6	2017-12-06	60201600097
FOR DETECTING	(Federal				7.3
OPERATING EVENTS OF AN	Republic of)				
ENGINE	<u> </u>				
METHODS AND SYSTEMS	Germany	2015-12-21	15201539.2	2017-10-25	60201500559
TO CHARACTERIZE NOISES	(Federal				6.9
SENSED BY A KNOCK	Republic of)				
SENSOR					
SYSTEMS AND METHODS	Germany	2016-06-24	112016002938		

Title	Country	Filed Date	App. Number	Grant Date	Patent
	N N		1.1		Number
FOR DETECTION OF	(Federal		.1		
ENGINE COMPONENT	Republic of)				
CONDITIONS VIA					
EXTERNAL SENSORS					
METHODS TO ADAPT AIR-	Germany	2016-09-16	112016005242		
FUEL A/F CONTROLS FOR	(Federal		.1		
CATALYST AGING	Republic of)				
METHODS TO ADAPT	Germany	2016-09-16	112016005241		
REDUCTANT INJECTION	(Federal		.3		
CONTROLS FOR CATALYST	Republic of)				
AGING					
SYSTEM AND METHOD	Germany	2018-07-03	102018116027		
FOR VALVE EVENT	(Federal		.5		
DETECTION AND	Republic of)				
CONTROL					
SYSTEM AND METHOD	Germany	2018-08-02	10 2018 118		
FOR DETECTING	(Federal		775.0		
1	Republic of)				
ENGINE VIA MIDI					
Optimized cylinder head	Germany				
exhaust port and water-cooled	(Federal				
exhaust valve guide for	Republic of)				
maximum cooling of the guide	republic or)				
SYSTEM AND METHOD	Germany	2018-09-17	102018122694		
FOR COMPRESSOR	(Federal	2010 09 17	.2		
SCHEDULING	Republic of)				
PISTON ASSEMBLY WITH	Germany				
OFFSET TIGHT LAND	(Federal				
PROFILE	Republic of)				
SYSTEMS AND METHODS	Germany	2015-12-10	15199342.5	2018-10-03	60201501742
FOR MODEL BASED	(Federal	2013-12-10	13177342.3	2010-10-03	5.9
CONTROL OF CATALYTIC	Republic of)				3.7
CONVERTER SYSTEMS	republic or)				
SYSTEM AND METHOD	Germany	2016-04-13	16165045.2	2018-10-03	60201600614
FOR INJECTION CONTROL	(Federal	2010-04-13	10103043.2	2010-10-03	6.5
OF UREA IN SELECTIVE	Republic of)				0.5
CATALYST REDUCTION	Copublic Of)				
SYSTEM AND METHOD	Germany	2016-04-13	16165045.2	2018-10-03	60201600614
FOR INJECTION CONTROL	(Federal	2010-04-13	10103043.2	2010-10-03	6.5
OF UREA IN SELECTIVE	Republic of)				0.5
CATALYST REDUCTION	Kepublic of)				
SYSTEM AND METHOD	India	2007-12-24	3086/CHE/200		
		2007-12-24	3000/CHE/200 7		
FOR BALANCING LOAD IN			'		
POWER BLOCKS				L	

Title	Country	Filed Date	App. Number	Grant Date	Patent
rnie	Country	rneu Date	App. Number	Grant Date	Number
ELECTROMAGNETIC	India	2013-06-05	1686/DEL/201		i vumbei
BRAKING SYSTEMS AND	India	2013 00 03	3		
METHODS					
SYSTEM FOR COOLING	India	2014-02-28	1042/CHE/201		
POWER GENERATION	India	2011 02 20	4		
SYSTEM					
Rich Burn Internal Combustion	India	2014-02-03	485/CHE/2014		
Engine Catalyst Control		2011 02 03	103/ 6112/ 2011		
SYSTEM AND PROGRAM	India	2014-11-25	5910/CHE/201		
PRODUCT FOR	India	2011 11 25	4		
CONTROLLING EXHAUST					
GAS TEMPERATURE OF					
ENGINE SYSTEM					
POWER GENERATION	India	2014-11-11	5669/CHE/201		
SYSTEM AND METHOD			4		
WITH FAULT RIDE					
THROUGH CAPABILITY					
ONBOARD CATALYST	India	2014-11-11	5668/CHE/201		
HEALTH MONITORING			4		
AND CONTROL SYSTEM					
ADAPTATION IN					
INTERNAL COMBUSTION					
ENGINES					
PISTON ASSEMBLY FOR A	India	2015-06-05	2815/CHE/201		
RECIPROCATING ENGINE			5		
PISTON ASSEMBLY FOR A	India	2015-06-05	2816/CHE/201		
RECIPROCATING ENGINE			5		
SYSTEM FOR	India	2015-08-13	4220/CHE/201		
CONTROLLING DEPOSITS			5		
ON CYLINDER LINER AND					
PISTON OF					
RECIPROCATING ENGINE					
PISTON ASSEMBLY FOR A	India	2015-05-27	2656/CHE/201		
RECIPROCATING ENGINE			5		
PISTON WITH REDUCED	India	2015-01-05	82/CHE/2015		
TOP LAND HEIGHT AND					
TIGHT TOP LAND PISTON					
PROFILE					
SYSTEMS AND METHODS	India	2015-01-06	98/CHE/2015		
FOR CONTROLLING					
EMISSIONS IN AN					
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					

Title	Country	Filed Date	App. Number	Grant Date	Patent
- T					Number
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
SYSTEMS AND METHODS	India	2015-12-08	6545/CHE/201		
FOR MODEL BASED			5		
CONTROL OF CATALYTIC					
CONVERTER SYSTEMS					
SPARK PLUG ELECTRODE	India	2015-09-26	5141/CHE/201		
GAP SETTING TOOL			5		
POWER GENERATION	India	2015-12-11	6658/CHE/201		
SYSTEM AND METHOD			5		
WITH RESISTIVE BRAKING					
CAPABILITY					
SYSTEMS AND METHODS	India	2016-03-02	201644007271		
FOR CONTROLLING	litata	2010 05 02	201011007271		
AFTERTREATMENT					
SYSTEMS					
SYSTEM AND METHOD	India	2015-12-23	6860/CHE/201		
FOR LOCATING ENGINE	muia	2013-12-23	5		
NOISE					
KNOCK SENSOR SYSTEMS	India	2016-04-21	201644013824		
AND METHODS FOR	India	2010-04-21	201044013024		
DETECTION OF					
COMPONENT CONDITIONS					
SENSOR FOR	India	2015-12-30	7072/CHE/201		
DETERMINING ENGINE	liidia	2013-12-30	5		
CHARACTERISTICS					
METHOD AND SYSTEM TO	India	2016-02-17	201644005486		
DETERMINE LOCATION OF	liidia	2010-02-17	201044003400		
PEAK FIRING PRESSURE					
SYSTEM AND METHOD	India	2016-01-06	201644000441		
FOR DETECTING	Illula	2010-01-00	201044000441		
RECIPROCATING DEVICE					
ABNORMALITIES					
UTILIZING STANDARD					
QUALITY CONTROL					
TECHNIQUES					
SYSTEM AND METHOD	India	2016-02-04	201644003930		
FOR MODEL BASED AND		2010-02-04	201047003330		
MAP BASED THROTTLE					
POSITION DERIVATION					
AND MONITORING					
INDUCTION GENERATOR	India	2014-10-21	5251/CHE/201		
ENDOCTION GENERATOR	muia	2014-10-21	5251/CHE/201		

Title	Country	Filed Date	App. Number	Grant Date	Patent
					Number
SYSTEM WITH A GRID-			4		
LOSS RIDE-THROUGH					
CAPABILITY					
SYSTEMS AND METHODS	India	2016-03-09	201644008132		
TO DISTINGUISH ENGINE					
KNOCK FROM PISTON					
SLAP					
METHODS AND SYSTEMS	India	2016-02-04	201644003933		
TO DERIVE KNOCK					
SENSOR CONDITIONS					
SYSTEM AND METHOD	India	2016-01-25	201644002813		
FOR DETECTING					
OPERATING EVENTS OF AN					
ENGINE					
METHODS AND SYSTEMS	India	2015-12-23	6857/CHE/201		
TO CHARACTERIZE NOISES			5		
SENSED BY A KNOCK					
SENSOR					
PISTON ASSEMBLY FOR A	India	2016-01-06	201644000498		
RECIPROCATING ENGINE					
SYSTEM AND METHOD	India	2015-12-18	6773/CHE/201		
FOR IMPROVED JOURNAL			5		
BEARING OPERATIONS					
METHODS AND SYSTEMS	India	2016-02-12	201644004935		
TO DERIVE ENGINE					
COMPONENT HEALTH					
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	India	2016-03-15	201644008944		
FOR LOCATING AN ENGINE					
EVENT					
COATING OF A JOURNAL	India	2015-12-22	6841/CHE/201		
BEARING SYSTEM AND AN			5		
ASSOCIATED METHOD					
THEREOF					
COATING OF A VALVE	India	2015-12-22	6842/CHE/201		
SYSTEM AND AN			5		
ASSOCIATED METHOD					
THEREOF					
JOINT-LESS CONTNUOUS	India	2016-12-16	201641042871		
JOURNAL BEARINGS					
AN ENGINE AND A	India	2017-02-10	201741004931		
METHOD OF OPERATING					
	I .	<u> </u>	1	I	ı

Title	Country	Filed Date	App. Number	Grant Date	Patent
THE	Country	i neu Date	ripp. Mamber	Grant Date	Number
THE SAME					
SYSTEM AND METHOD	India	2017-08-18	201741029279		
FOR PISTON RING	India	2017 00 10	2017 11023273		
PROGNOSTIC					
SYSTEM AND METHOD	Israel	2015-12-15	243143		
FOR LOCATING ENGINE		2010 12 10	51 .5		
NOISE					
ORGANIC RANKINE CYCLE	Italy	2012-05-03	502016000063	2016-04-13	2522828
SYSTEMS USING WASTE			032		
HEAT FROM CHARGE AIR					
COOLING					
INTEGRATED REFORMER	Italy	2013-10-10	MI2013A0016	2016-01-12	1420385
AND WASTE HEAT			75	2010 01 12	1.20000
RECOVERY SYSTEM FOR			, ,		
POWER GENERATION					
VARIABLE THICKNESS	Italy	2013-06-20	502017000126	2017-08-09	2677152
COATINGS FOR CYLINDER			501		
LINERS					
Mixing chamber with spiral	Italy	2012-06-07	502016000094	2016-08-10	2671630
channels	'		734		
EMISSIONS CONTROL IN	Italy	2014-07-01	502018000007	2017-12-13	2821609
STATIONARY RICH BURN			795		
ENGINES					
SYSTEMS AND METHODS	Italy	2015-01-13	502017000129	2017-08-16	2894306
FOR CONTROLLING			163		
EMISSIONS IN AN					
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
EXHAUST	Italy	2015-04-15		2017-06-14	2933450
AFTERTREATMENT			691		
SYSTEM WITH AGING					
MONITORING OF AN					
AMMONIA SLIP CATALYST					
SPARK PLUG ELECTRODE	Italy	2015-10-05	15188410.3	2018-07-04	3006163
GAP SETTING TOOL					
METHOD AND SYSTEM	Italy	2015-12-09	502017000128	2017-08-16	3032057
FOR CONTROL OF			532		
EMISSIONS IN EXHAUST					
AFTERTREATMENT					

Title	Country	Filed Date	App. Number	Grant Date	Patent
	y		-1-1		Number
SYSTEM					
VARIABLE THICKNESS	Japan	2013-06-17	2013-126218	2017-10-27	6231781
COATINGS FOR CYLINDER					
LINERS					
GAS DOSAGE CONTROL	Japan	2014-04-23	2014-088709		
FOR GAS ENGINE					
EMISSIONS CONTROL IN	Japan	2014-11-17	2014-232291		
DIESEL ENGINES					
SYSTEM AND METHOD	Japan	2014-10-06	2014-205428		
FOR CONTROL OF					
EXHAUST GAS					
RECIRCULATION EGR					
UTILIZING PROCESS					
TEMPERATURES					
SYSTEM AND PROGRAM	Japan	2014-12-04	2014-245443		
PRODUCT FOR					
CONTROLLING EXHAUST					
GAS TEMPERATURE OF					
ENGINE SYSTEM					
GASEOUS REDUCTANT	Japan	2014-10-15	2014-210349		
INJECTION CONTROL					
SYSTEM					
POWER GENERATION	Japan	2014-11-17	2014-232292		
SYSTEM AND METHOD					
WITH FAULT RIDE					
THROUGH CAPABILITY					
ONBOARD CATALYST	Japan	2014-11-17	2014-232294		
HEALTH MONITORING					
AND CONTROL SYSTEM					
ADAPTATION IN					
INTERNAL COMBUSTION					
ENGINES	T	2014 00 17	2014 199274		
Systems and Methods for	Japan	2014-09-17	2014-188374		
Monitoring Catalyst					
Deactivation and Controlling an Air/Fuel Ratio					
PISTON ASSEMBLY FOR A	Ionon	2015-06-01	2015-111016		
RECIPROCATING ENGINE	Japan	2013-00-01	2013-111010		
PISTON ASSEMBLY FOR A	Ianan	2015-06-02	2015-111810		
RECIPROCATING ENGINE	Japan	2013-00-02	2013-111810		
SYSTEM FOR	Ianan	2015-08-14	2015-160008		
CONTROLLING DEPOSITS	Japan	2013-00-14	2013-100008		
ON CYLINDER LINER AND					
PISTON OF					
LISTON OF					

Title	Country	Filed Date	App. Number	Grant Date	Patent
	Country	i neu pare	prop. rampe.	Grant Date	Number
RECIPROCATING ENGINE					
EMISSION CONTROL IN	Japan	2015-03-20	2015-057029		
RICH BURN NATURAL GAS	bapan	2010 00 20	2010 007029		
ENGINES					
PISTON ASSEMBLY FOR A	Japan	2015-06-02	2015-111811		
RECIPROCATING ENGINE	Japan	2013 00 02	2013 111011		
BASE-FRAME ASSEMBLY	Japan	2016-05-06	2016-092921		
FOR A COMBUSTION	Japan	2010-03-00	2010-072721		
ENGINE					
PISTON WITH REDUCED	Japan	2015-01-08	2015-001930		
TOP LAND HEIGHT AND	Japan	2013-01-08	2013-001730		
TIGHT TOP LAND PISTON					
PROFILE					
SYSTEMS AND METHODS	Japan	2015-01-09	2015-002718		
FOR CONTROLLING	Japan	2013-01-09	2013-002718		
EMISSIONS IN AN					
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
EXHAUST AFTER	Longo	2015-04-09	2015-079650		
TREATMENT SYSTEM	Japan	2013-04-09	2013-079630		
WITH CATALYTIC					
DEACTIVATION					
MONITORING					
	Toman	2016 02 26	2016-035004		
CONDITION BASED	Japan	2016-02-26	2016-035004		
ENGINE PARTS					
MONITORING	Т	2015 07 22	2015 144650		
SYSTEM AND METHOD	Japan	2015-07-22	2015-144650		
FOR IMPROVING					
RESPONSE TIME OF A					
BRAKING UNIT	T	2015 12 04	2015 225004		
SYSTEMS AND METHODS	Japan	2015-12-04	2015-237084		
FOR MODEL BASED					
CONTROL OF CATALYTIC					
CONVERTER SYSTEMS	T	2015 01 00	0015 050046		
EXHAUST	Japan	2015-04-08	2015-078846		
AFTERTREATEMENT					
SYSTEM WITH CATALYTIC					
DEACTIVATION					
MONITORING					

Title	Country	Filed Date	App. Number	Grant Date	Patent
			11		Number
SPARK PLUG ELECTRODE	Japan	2015-10-02	2015-196349		
GAP SETTING TOOL					
POWER GENERATION	Japan	2015-12-03	2015-236194		
SYSTEM AND METHOD					
WITH RESISTIVE BRAKING					
CAPABILITY					
SYSTEMS AND METHODS	Japan	2016-02-25	2016-033703		
FOR CONTROLLING	1				
AFTERTREATMENT					
SYSTEMS					
SYSTEM AND METHOD	Japan	2015-12-24	2015-250816		
FOR LOCATING ENGINE	1				
NOISE					
KNOCK SENSOR SYSTEMS	Japan	2016-04-15	2016-081598		
AND METHODS FOR	1				
DETECTION OF					
COMPONENT CONDITIONS					
SENSOR FOR	Japan	2015-12-25	2015-252726		
DETERMINING ENGINE	^				
CHARACTERISTICS					
METHOD AND SYSTEM TO	Japan	2016-02-12	2016-024304		
DETERMINE LOCATION OF	^				
PEAK FIRING PRESSURE					
SYSTEM AND METHOD	Japan	2015-12-29	2015-257553		
FOR DETECTING					
RECIPROCATING DEVICE					
ABNORMALITIES					
UTILIZING STANDARD					
QUALITY CONTROL					
TECHNIQUES					
SYSTEM AND METHOD	Japan	2016-01-28	2016-013886		
FOR MODEL BASED AND					
MAP BASED THROTTLE					
POSITION DERIVATION					
AND MONITORING					
INDUCTION GENERATOR	Japan	2015-10-15	2015-203318		
SYSTEM WITH A GRID-					
LOSS RIDE-THROUGH					
CAPABILITY					
SYSTEMS AND METHODS	Japan	2016-03-04	2016-041659		
TO DISTINGUISH ENGINE					
KNOCK FROM PISTON					
SLAP					
METHODS AND SYSTEMS	Japan	2016-02-02	2016-017592		

Title	Country	Filed Date	App. Number	Grant Date	Patent
					Number
TO DERIVE KNOCK					
SENSOR CONDITIONS					
SYSTEM AND METHOD	Japan	2016-01-22	2016-010206		
FOR DETECTING					
OPERATING EVENTS OF AN					
ENGINE					
METHODS AND SYSTEMS	Japan	2015-12-24	2015-250817		
TO CHARACTERIZE NOISES					
SENSED BY A KNOCK					
SENSOR					
KNOCK SENSOR NETWORK	Japan	2016-03-18	2017-551075		
SYSTEMS AND METHODS	^				
FOR CHARACTERIZING					
NOISES					
PISTON ASSEMBLY FOR A	Japan	2016-01-06	2016-000775		
RECIPROCATING ENGINE	1				
SYSTEMS AND METHODS	Japan	2016-03-31	2016-069870		
FOR ESTIMATING A TIME	1				
OF AN ENGINE EVENT					
METHODS AND SYSTEMS	Japan	2016-02-04	2016-019410		
TO DERIVE ENGINE	1				
COMPONENT HEALTH					
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	Japan	2016-03-16	2016-051793		
FOR LOCATING AN ENGINE					
EVENT					
SYSTEM AND METHOD	Japan	2016-04-08	2016-077703		
FOR INJECTION CONTROL	o ap an	2010 0 . 00			
OF UREA IN SELECTIVE					
CATALYST REDUCTION					
	Japan	2016-06-23	2017-567618		
COMBUSTION ENGINE	Japan	2010 00 23	2017 307010		
RECIPROCATING	Japan	2017-10-04	2017-193924		
COMPRESSOR FLOW	o ap an	201, 10 0	2017 198921		
SENSING					
JOINT-LESS CONTNUOUS	Japan	2017-12-04	2017-232273		
JOURNAL BEARINGS	Japan	2017 12 01	2017 232273		
SYSTEMS AND METHODS	Japan	2018-11-22	2018-219240		
FOR SPARK TIMING	Japan	2010 11 22	2010 219210		
RETARDATION					
VARIABLE THICKNESS	Korea,	2013-06-19	102013007033		
COATINGS FOR CYLINDER	Republic of	2013-00-19	0		
CONTINUSTOR CILINDER	propublic of		I _O		

Title	Country	Filed Date	App. Number	Grant Date	Patent
1	Country	I neu Date	ipp.::umsci		Number
LINERS	(KR)				
GAS DOSAGE CONTROL	Korea,	2014-05-07	2014-0054162	2016-07-07	10-1639203
FOR GAS ENGINE	Republic of				
	(KR)				
Rich Burn Internal Combustion	Korea,	2014-02-05	2014-0012897		
Engine Catalyst Control	Republic of				
	(KR)				
EMISSIONS CONTROL IN	Korea,	2014-11-17	10-2014-		
DIESEL ENGINES	Republic of		0160067		
	(KR)				
SYSTEM AND PROGRAM	Korea,	2014-12-10	102014017744		
PRODUCT FOR	Republic of		3		
CONTROLLING EXHAUST	(KR)				
GAS TEMPERATURE OF					
ENGINE SYSTEM					
GASEOUS REDUCTANT	Korea,	2014-10-16	102014013956		
INJECTION CONTROL	Republic of		7		
SYSTEM	(KR)				
POWER GENERATION	Korea,	2014-11-07	102014015420		
SYSTEM AND METHOD	Republic of		6		
WITH FAULT RIDE	(KR)				
THROUGH CAPABILITY	T.7	0014 11 10	100014016006		
ONBOARD CATALYST	Korea,	2014-11-18	102014016096		
HEALTH MONITORING	Republic of		9		
AND CONTROL SYSTEM	(KR)				
ADAPTATION IN INTERNAL COMBUSTION					
ENGINES ENGINES					
Systems and Methods for	Korea,	2014-09-19	102014012480		
Monitoring Catalyst	Republic of	2014-09-19	1		
Deactivation and Controlling an	(KR)				
Air/Fuel Ratio	(KIC)				
PISTON ASSEMBLY FOR A	Korea,	2015-06-04	10-2015-		
RECIPROCATING ENGINE	Republic of	2013 00 0 1	0079093		
	(KR)		0073030		
PISTON ASSEMBLY FOR A	Korea,	2015-06-03	10-		
RECIPROCATING ENGINE	Republic of		20150078435		
	(KR)				
SYSTEM FOR	Korea,	2015-08-11	10-2015-		
CONTROLLING DEPOSITS	Republic of		0112972		
ON CYLINDER LINER AND	(KR)				
PISTON OF					
RECIPROCATING ENGINE					
EMISSION CONTROL IN	Korea,	2015-03-26	102015004234		

Title	Country	Filed Date	App. Number	Grant Date	Patent
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RICH BURN NATURAL GAS	Republic of		7		
ENGINES	(KR)				
PISTON ASSEMBLY FOR A	Korea,	2015-06-05	10-2015-		
RECIPROCATING ENGINE	Republic of		0079686		
	(KR)				
BASE-FRAME ASSEMBLY	Korea,	2016-05-10	10-2016-		
FOR A COMBUSTION	Republic of		0056913		
ENGINE	(KR)				
PISTON WITH REDUCED	Korea,	2015-01-12	102015000401		
TOP LAND HEIGHT AND	Republic of		6		
TIGHT TOP LAND PISTON	(KR)				
PROFILE					
SYSTEMS AND METHODS	Korea,	2015-01-09	102015000332		
FOR CONTROLLING	Republic of		7		
EMISSIONS IN AN	(KR)				
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
EXHAUST AFTER	Korea,	2015-04-14	10-2015-		
TREATMENT SYSTEM	Republic of		0052329		
WITH CATALYTIC	(KR)				
DEACTIVATION					
MONITORING					
CONDITION BASED	Korea,	2016-03-03	102016002570		
ENGINE PARTS	Republic of		6		
MONITORING	(KR)				
SYSTEMS AND METHODS	Korea,	2015-12-11	102015017711		
FOR MODEL BASED	Republic of		1		
CONTROL OF CATALYTIC	(KR)				
CONVERTER SYSTEMS					
EXHAUST	Korea,	2015-04-15	10-2015-		
AFTERTREATEMENT	Republic of		0053242		
SYSTEM WITH CATALYTIC	(KR)				
DEACTIVATION					
MONITORING					
SPARK PLUG ELECTRODE	Korea,	2015-10-05	102015013961		
GAP SETTING TOOL	Republic of		5		
	(KR)				
POWER GENERATION	Korea,	2015-12-10	102015017597		
SYSTEM AND METHOD	Republic of		2		

Title	Country	Filed Date	App. Number	Grant Date	Patent
			T.F.		Number
WITH RESISTIVE BRAKING	(KR)				
CAPABILITY					
SYSTEMS AND METHODS	Korea,	2016-02-26	102016002365		
FOR CONTROLLING	Republic of		2		
AFTERTREATMENT	(KR)				
SYSTEMS					
SYSTEM AND METHOD	Korea,	2015-12-30	102015019001		
FOR LOCATING ENGINE	Republic of		8		
NOISE	(KR)				
KNOCK SENSOR SYSTEMS	Korea,	2016-04-15	102016004629		
AND METHODS FOR	Republic of	2010 01 15	8		
DETECTION OF	(KR)				
COMPONENT CONDITIONS					
SENSOR FOR	Korea,	2016-01-04	102016000023		
DETERMINING ENGINE	Republic of	2010-01-04	0		
CHARACTERISTICS	(KR)		O		
METHOD AND SYSTEM TO	Korea,	2016-02-15	102016001702		
DETERMINE LOCATION OF	Republic of	2010-02-13	102010001702		
PEAK FIRING PRESSURE	(KR)				
SYSTEM AND METHOD	Korea,	2016-01-05	2016-0000845		
FOR DETECTING	Republic of	2010-01-03	2010-0000843		
RECIPROCATING DEVICE	(KR)				
ABNORMALITIES	(KK)				
UTILIZING STANDARD					
QUALITY CONTROL					
TECHNIQUES					
SYSTEM AND METHOD	Korea,	2016-02-04	102016001440		
FOR MODEL BASED AND	Republic of	2010-02-04	8		
MAP BASED THROTTLE	(KR)		B		
POSITION DERIVATION	(KK)				
AND MONITORING					
INDUCTION GENERATOR	Korea,	2015-10-15	102015014389		
SYSTEM WITH A GRID-	Republic of	2013-10-13	102013014369		
LOSS RIDE-THROUGH	(KR)		3		
CAPABILITY					
SYSTEMS AND METHODS	Korea,	2016-03-07	102016002699		
TO DISTINGUISH ENGINE	Republic of	2010-03-07	l .		
KNOCK FROM PISTON	(KR)		4		
SLAP	(KK)				
	Vorce	2016-01-29	102016001158		
SYSTEM AND METHOD FOR DETECTING	Korea,	2010-01-29	102010001138		
l .	Republic of (KR)		1		
ENGINE METHODS AND SYSTEMS	Voras	2015 12 20	102015019074		
METHODS AND SYSTEMS	Korea,	2015-12-30	102015018974		

Title	Country	Filed Date	App. Number	Grant Date	Patent
11111	Country	i nea bace	**pp. r.umscr		Number
TO CHARACTERIZE NOISES	Republic of		5		
SENSED BY A KNOCK	(KR)				
SENSOR					
	Korea,	2016-03-18	102017703165		
SYSTEMS AND METHODS	Republic of		1		
FOR CHARACTERIZING	(KR)				
NOISES					
PISTON ASSEMBLY FOR A	Korea,	2016-01-05	10-2016-		
RECIPROCATING ENGINE	Republic of (KR)		0000871		
SYSTEMS AND METHODS	Korea,	2016-03-30	102016003837		
FOR ESTIMATING A TIME	Republic of		4		
OF AN ENGINE EVENT	(KR)				
METHODS AND SYSTEMS	Korea,	2016-02-03	102016001334		
TO DERIVE ENGINE	Republic of		9		
COMPONENT HEALTH	(KR)				
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	Korea,	2016-03-24	102016003540		
	Republic of		1		
EVENT	(KR)				
DUAL FUEL SYSTEM FOR A	Korea,	2016-06-23	102018700390		
COMBUSTION ENGINE	Republic of (KR)		2		
RECIPROCATING	Korea,	2017-10-11	10- 2017-		
COMPRESSOR FLOW	Republic of		0130176		
SENSING	(KR)				
JOINT-LESS CONTNUOUS	Korea,	2017-12-14	102017017208		
JOURNAL BEARINGS	Republic of		2		
	(KR)	2012 05 02	101665440	2016 04 12	252222
ORGANIC RANKINE CYCLE SYSTEMS USING WASTE	Netherlands	2012-05-03	12166544.2	2016-04-13	2522828
HEAT FROM CHARGE AIR					
COOLING					
Mixing chamber with spiral	Norway	2012-06-07	12171197.2	2016-08-10	2671630
channels	Norway	2012-00-07	121/11/1.2	2010-08-10	2071030
SYSTEM AND METHOD	Patent	2016-06-08	PCT/US2016/0		
FOR OXIDANT	Cooperation		36436		
TEMPERATURE CONTROL	Treaty				
METHOD AND SYSTEM	Patent	2016-06-29	PCT/US16/039		
FOR PORTABLE ENGINE	Cooperation		927		
HEALTH MONITORING	Treaty				
COATING OF A SYSTEM	Patent	2016-12-21	PCT/US2016/0		

Title	Country	Filed Date	App. Number	Grant Date	Patent
1		i neu Duce	* * pp : .u	gram Ducc	Number
AND AN ASSOCIATED	Cooperation		68002		
METHOD THEREOF	Treaty				
SYSTEM AND METHOD	Patent	2016-08-31	PCT/US2016/0		
FOR LOCATING AN ENGINE	Cooperation		49694		
EVENT	Treaty				
RECIPROCATING ENGINE	Patent	2018-01-11	PCT/US2018/0		
SYSTEM WITH	Cooperation		13250		
ELECTRICALLY DRIVEN	Treaty				
COMPRESSOR AND					
METHOD FOR OPERATING					
SAME					
REGENERATIVE THERMAL	Patent	2017-06-23	PCT/CN2017/		
OXIDIZER SYSTEM AND	Cooperation		089712		
METHOD FOR OPERATING	Treaty				
REGENERATIVE THERMAL					
OXIDIZER SYSTEM					
SYSTEM AND METHOD	Patent	2018-01-30	PCT/US18/015		
FOR INSTALLING SPARK	Cooperation		877		
PLUGS	Treaty				
SYSTEM AND METHOD OF	Patent	2018-12-20	PCT/US18/666		
SPARK PLUG TAGGING	Cooperation		23		
AND IDENTIFICATION	Treaty				
DRILLING SYSTEM AND	Russian	2015-06-17	2015123290		
POWER SUPPLY METHOD	Federation				
Mixing chamber with spiral	Spain	2012-06-07	12171197.2	2016-08-10	2671630
channels					
VARIABLE THICKNESS	Switzerland	2013-06-20	13173010.3	2017-08-09	2677152
COATINGS FOR CYLINDER					
LINERS		2015 01 12	15150000	2017 00 16	2004206
SYSTEMS AND METHODS	Switzerland	2015-01-13	15150923.9	2017-08-16	2894306
FOR CONTROLLING					
EMISSIONS IN AN					
INTERNAL COMBUSTION					
ENGINE THROUGH THE CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
METHOD AND SYSTEM	Switzerland	2015-12-09	15198666.8	2017-08-16	3032057
FOR CONTROL OF	Switzerianu	2013-12-09	13130000.0	2017-00-10	3032037
EMISSIONS IN EXHAUST					
AFTERTREATMENT					
SYSTEM					
DIDITAI	I	1			

Title	Country	Filed Date	App. Number	Grant Date	Patent
	a ^y		11		Number
EMISSIONS CONTROL IN	United	2014-07-01	14175159.4	2017-12-13	2821609
STATIONARY RICH BURN	Kingdom				
ENGINES					
EXHAUST	United	2015-04-15	15163722.0	2017-06-14	2933450
AFTERTREATMENT	Kingdom				
SYSTEM WITH AGING					
MONITORING OF AN					
AMMONIA SLIP CATALYST					
SPARK PLUG ELECTRODE	United	2015-10-05	15188410.3	2018-07-04	3006163
GAP SETTING TOOL	Kingdom				
SYSTEM AND METHOD	United	2006-12-13	11/609919	2009-09-29	7594399
FOR POWER GENERATION	States of				
IN RANKINE CYCLE	America				
ADAPTIVE MILLER CYCLE	United	2008-02-29	12/040225	2010-04-06	7690336
ENGINE	States of				
	America				
SYSTEM AND METHOD	United	2007-06-29	11/770895	2013-10-22	8561405
FOR RECOVERING WASTE	States of				
HEAT	America				
SYSTEM AND METHOD	United	2007-12-14	11/956457	2012-05-29	8186161
FOR CONTROLLING AN	States of				
EXPANSION SYSTEM	America				
TWO-PHASE EXPANSION	United	2008-11-20	12/274608	2011-08-02	7987676
SYSTEM AND METHOD	States of				
FOR ENERGY RECOVERY	America				
SYSTEM FOR CLOSED-	United	2008-11-14	12/270878	2011-08-09	7996142
LOOP CONTROL OF	States of				
COMBUSTION IN ENGINES	America				
TURBINE EXHAUST	United	2009-08-27	12/548526	2013-07-09	8479489
RECIRCULATION	States of				
	America				
SPIRAL RECUPERATIVE	United	2009-11-30	12/627059	2014-05-13	8721981
HEAT EXCHANGING	States of				
SYSTEM	America				
POWER GENERATION	United	2009-11-04	12/611988	2014-04-08	8692523
SYSTEM AND METHOD	States of				
WITH VOLTAGE FAULT	America				
RIDE-THROUGH					
CAPABILITY					
AUTO OPTIMIZING	United	2010-02-25	12/712954	2013-11-26	8590307
CONTROL SYSTEM FOR	States of				
ORGANIC RANKINE CYCLE	America				
PLANTS					
SYSTEM AND METHOD	United	2010-09-29	12/892973	2014-06-03	8739541

Title	Country	Filed Date	App. Number	Grant Date	Patent
			TT		Number
FOR COOLING AN	States of				
EXPANDER	America				
TURBINE INLET	United	2010-06-18	12/818234	2014-08-26	8813498
CONDITION CONTROLLED	States of				
ORGANIC RANKINE CYCLE	America				
INTEGRATED GENERATOR	United	2011-04-29	13/097101	2014-11-04	8875515
COOLING SYSTEM	States of				
	America				
ELECTROMAGNETIC	United	2012-06-28	13/536245	2016-08-09	9413217B2
BRAKING SYSTEMS AND	States of				
METHODS	America				
ORGANIC RANKINE CYCLE	United	2011-05-13	13/106929	2012-11-06	8302399
SYSTEMS USING WASTE	States of				
HEAT FROM CHARGE AIR	America				
COOLING					
INTEGRATION OF WASTE	United	2011-04-20	13/090363	2014-02-18	8650879
HEAT FROM CHARGE AIR	States of				
COOLING INTO A	America				
CASCADED ORGANIC					
RANKINE CYCLE SYSTEM					
SYSTEMS AND METHODS	United	2012-01-06	13/344679	2016-02-02	9249691B2
FOR COLD STARTUP OF	States of				
RANKINE CYCLE DEVICES	America				
INGEGRATED REFORMER	United	2012-10-24	13/658986	2017-07-18	9708973
AND WASTE HEAT	States of				
RECOVERY SYSTEM FOR	America				
POWER GENERATION					
VARIABLE THICKNESS	United	2012-06-20	13/527699	2017-01-03	9534559
COATINGS FOR CYLINDER	States of				
LINERS	America				
METHOD OF PRODUCING A	United	2012-01-24	13/357307	2013-07-16	8485857
SPARK GAP FOR AN	States of				
ELECTRODE SUPPORT	America				
USING SACRIFICIAL					
MATERIAL					
SYSTEMS AND METHODS	United	2017-11-27	15/823303		
FOR SPARK TIMING	States of				
RETARDATION	America				
MIXING DEVICE HAVING A	United	2012-11-29	13/688518	2016-02-23	9266074B2
PLURALITY OF MIXING	States of				
CHANNELS	America				
SYSTEM AND METHOD OF	United	2015-11-18	14/945322	2018-03-27	9926891
EXHAUST GAS	States of				
RECIRCULATION	America				

Title	Country	Filed Date	App. Number	Grant Date	Patent
	N'		11		Number
METHOD OF PRODUCING	United	2012-01-24	13/357314	2014-12-16	8912713
AN ELECTRODE SUPPORT	States of				
USING BRAZING	America				
SYSTEM FOR COOLING	United	2013-03-04	13/783662	2014-12-30	8922033B2
POWER GENERATION	States of				
SYSTEM	America				
GAS DOSAGE CONTROL	United	2013-05-10	13/891807	2017-02-28	9581089
FOR GAS ENGINE	States of				
	America				
Rich Burn Internal Combustion	United	2013-02-06	13/760630	2014-11-18	8887490
Engine Catalyst Control	States of				
	America				
LAMBDA VIRTUAL	United	2015-08-11	14/823806	2017-08-01	9719445
SENSOR SYSTEMS AND	States of				
METHODS FOR A	America				
COMBUSTION ENGINE					
Emissions Control in Stationary	United	2013-07-02	13/933766	2015-06-16	9057301
Rich Burn Engines	States of				
	America				
SYSTEM AND METHOD	United	2013-10-11	14/052243	2016-08-23	9422877B2
FOR CONTROL OF	States of				
EXHAUST GAS	America				
RECIRCULATION EGR					
UTILIZING PROCESS					
TEMPERATURES					
SYSTEM AND PROGRAM	United	2013-12-11	14/102615	2017-12-26	9850841
PRODUCT FOR	States of				
CONTROLLING EXHAUST	America				
GAS TEMPERATURE OF					
ENGINE SYSTEM					
GASEOUS REDUCTANT	United	2013-10-24	14/062098	2016-01-26	9243534B2
INJECTION CONTROL	States of				
SYSTEM	America				
ONBOARD CATALYST	United	2013-11-19	14/083823	2016-09-06	9435246B2
HEALTH MONITORING	States of				
AND CONTROL SYSTEM	America				
ADAPTATION IN					
INTERNAL COMBUSTION					
ENGINES					
Systems and Methods for	United	2013-09-26	14/038014	2017-05-30	9664094
Monitoring Catalyst	States of				
Deactivation and Controlling an	America				
Air/Fuel Ratio					
SYSTEMS AND METHODS	United	2014-11-13	14/540536	2017-03-21	9601918

Title	Country	Filed Date	App. Number	Grant Date	Patent
[]					Number
FOR CONTROLLING	States of				
ACCELERATION OF A	America				
POWER GENERATOR					
POWER INTEGRATED	United	2015-02-05	14/614705	2018-07-10	10018044
SYSTEM AND METHOD	States of				
FOR DRILLING RIG AND	America				
OIL/GAS PRODUCTION					
EQUIPMENT					
PISTON ASSEMBLY FOR A	United	2014-06-06	14/298864	2016-10-18	9470179 B 2
RECIPROCATING ENGINE	States of				
	America				
CYLINDER HEAD	United	2015-06-22	14/745986	2018-04-03	9933334
ACCELERATION	States of				
MEASUREMENT FOR	America				
VALVE TRAIN					
DIAGNOSTICS SYSTEM					
AND METHOD					
PISTON ASSEMBLY FOR A	United	2014-06-06	14/298867	2015-12-01	9200589
RECIPROCATING ENGINE	States of				
	America				
SYSTEM FOR	United	2014-08-21	14/465564	2016-06-07	9359971B2
CONTROLLING DEPOSITS	States of				
ON CYLINDER LINER AND	America				
PISTON OF					
RECIPROCATING ENGINE	T 1	2015 00 06	1.5/5.40.605		
SYSTEM AND METHOD	United	2015-08-06	15/749627		
FOR ENGINE CONTROL	States of				
ENGGION CONTROL DI	America	2014 02 27	1.4/00/00/4	2015 10 06	01.407.60
EMISSION CONTROL IN	United	2014-03-27	14/226934	2015-10-06	9149768
RICH BURN NATURAL GAS	States of				
ENGINES	America	2014.06.06	14/2000	2016 05 10	0224920D2
PISTON ASSEMBLY FOR A	United	2014-06-06	14/298869	2016-05-10	9334830B2
RECIPROCATING ENGINE	States of				
DACE EDAME ACCEMBLY	America	2015 05 12	14/710257	2019 04 02	0022802
BASE-FRAME ASSEMBLY	United States of	2015-05-12	14/710257	2018-04-03	9932893
FOR A COMBUSTION	States of				
ENGINE DISTON WITH BEDLICED	America	2014 01 14	14/154460	2019 04 02	0022020
PISTON WITH REDUCED TOP LAND HEIGHT AND	United States of	2014-01-14	14/154462	2018-04-03	9932930
TIGHT TOP LAND PISTON	1				
PROFILE	America				
SYSTEMS AND METHODS	United	2014-01-14	14/154418	2015-06-16	9056279
FOR CONTROLLING	States of	201 4- 01-14	14/134418	2013-00-10	7U3U419
EMISSIONS IN AN	America				
EMISSIONS IN AIN	America		<u> </u>		

Title	Country	Filed Date	App. Number	Grant Date	Patent
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INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
EXHAUST	United	2014-04-15	14/252849	2016-02-23	9267412B2
AFTERTREATMENT	States of				
SYSTEM WITH CATALYTIC	America				
DEACTIVATION					
MONITORING					
SYSTEMS AND METHODS	United	2015-04-07	14/680934	2017-05-23	9657678
FOR USING TRANSPORT	States of				
TIME TO ESTIMATE	America				
ENGINE					
AFTERTREATMENT					
SYSTEM					
CHARACTERISTICS	T 1	2014 04 07	1.4/2.462.01	0015 11 04	0104005
CYLINDER LINER WITH	United	2014-04-07	14/246301	2015-11-24	9194327
SLOTS	States of				
CVCTEMC AND METHODS	America	2015 10 26	14/923009		
SYSTEMS AND METHODS FOR IN-CYLINDER	United States of	2015-10-26	14/923009		
PRESSURE ESTIMATION	America				
USING PRESSURE WAVE	America				
MODELING					
CONDITION BASED	United	2015-03-05	14/639704		
ENGINE PARTS	States of	2019 03 03	11,039701		
MONITORING	America				
SYSTEM AND METHOD	United	2014-07-24	14/339552	2016-08-02	9407187B2
FOR IMPROVING	States of				
RESPONSE TIME OF A	America				
BRAKING UNIT					
SYSTEMS AND METHODS	United	2014-12-12	14/569213	2017-03-28	9605579
FOR MODEL BASED	States of				
CONTROL OF CATALYTIC	America				
CONVERTER SYSTEMS					
DRILLING SYSTEM AND	United	2015-06-18	14/743444	2018-07-10	10017993
POWER SUPPLY METHOD	States of				
	America				
EXHAUST	United	2014-04-15	14/252890	2016-01-05	9228469B2
AFTERTREATEMENT	States of				
SYSTEM WITH CATALYTIC	America				

Title	Country	Filed Date	App. Number	Grant Date	Patent
			F1		Number
DEACTIVATION					
MONITORING					
SYSTEMS AND METHODS	United	2015-10-26	14/923032	2017-03-07	9587552
FOR DETECTING	States of				
ANOMALIES AT IN-	America				
CYLINDER PRESSURE					
SENSORS					
SPARK PLUG ELECTRODE	United	2014-10-08	14/509727	2016-08-30	9431797B2
GAP SETTING TOOL	States of				
	America				
POWER GENERATION	United	2014-12-11	14/566749	2018-08-14	10050433
SYSTEM AND METHOD	States of		1 1, 0 00 , 15	2010 00 1.	
WITH RESISTIVE BRAKING	America				
CAPABILITY					
SYSTEMS AND METHODS	United	2015-03-02	14/635816	2016-12-13	9517437B2
FOR CONTROLLING	States of	2010 00 02	1 1, 050010		5017 1372
AFTERTREATMENT	America				
SYSTEMS					
SYSTEM AND METHOD	United	2014-12-31	14/587434	2017-09-05	9752949
FOR LOCATING ENGINE	States of		1 1,00,101	2017 03 00	, , , 2 , , ,
NOISE	America				
HUMAN MACHINE	United	2014-11-12	14/539539	2017-08-01	9719454
INTERFACE (HMI) GUIDED	States of				
MECHANICAL FUEL	America				
SYSTEM ADJUSTMENT					
KNOCK SENSOR SYSTEMS	United	2015-04-24	14/695335		
AND METHODS FOR	States of				
DETECTION OF	America				
COMPONENT CONDITIONS					
METHOD AND SYSTEM TO	United	2015-02-19	14/626585	2018-06-19	10001077
DETERMINE LOCATION OF	States of				
PEAK FIRING PRESSURE	America				
SYSTEM AND METHOD	United	2015-01-07	14/591192	2017-10-31	9803567
FOR DETECTING	States of				
RECIPROCATING DEVICE	America				
ABNORMALITIES					
UTILIZING STANDARD					
QUALITY CONTROL					
TECHNIQUES					<u> </u>
SYSTEM AND METHOD	United	2015-02-19	14/626511		
FOR ENGINE EMISSION	States of				
CONTROL HARNESS	America				
SYSTEM AND METHOD	United	2015-02-04	14/614237	2016-12-27	9528445B2
FOR MODEL BASED AND	States of				

Title	Country	Filed Date	App. Number	Grant Date	Patent
1	ouning.	I neu Date	rpp:::umse:	Ginni Dine	Number
MAP BASED THROTTLE	America				
POSITION DERIVATION					
AND MONITORING					
METHODS AND SYSTEMS	United	2015-06-22	14/745868	2018-01-09	9863344
TO CONTROL EXHAUST	States of				
GAS RECIRCULATION	America				
INDUCTION GENERATOR	United	2015-10-21	14/918950	2018-09-18	10079485
SYSTEM WITH A GRID-	States of				
LOSS RIDE-THROUGH	America				
CAPABILITY					
SILENCER FOR MID-BED	United	2014-11-26	14/554706	2016-05-24	9347358B1
AIR INJECTION MIXING	States of				
	America				
SYSTEM AND METHOD OF	United	2014-12-10	14/565827	2017-06-20	9683467
COOLING VALVE WITH	States of				
MATERIAL IN CAVITY	America				
METHOD AND SYSTEM	United	2014-12-12	14/568580	2016-07-26	9399965B2
FOR CONTROL OF	States of				
EMISSIONS IN EXHAUST	America				
AFTERTREATMENT					
SYSTEM					
SYSTEM AND METHOD	United	2015-07-02	14/790785		
FOR DETECTION OF	States of				
CHANGES TO	America				
COMPRESSION RATIO AND					
PEAK FIRING PRESSURE OF					
AN ENGINE					
SYSTEMS AND METHODS	United	2015-03-11	14/644526	2017-07-04	9695761
TO DISTINGUISH ENGINE	States of				
KNOCK FROM PISTON	America				
SLAP					
SYSTEM AND METHOD	United	2014-12-31	14/587407	2017-01-31	9556810
FOR REGULATING	States of				
EXHAUST GAS	America				
RECIRCULATION IN AN					
ENGINE					
ESTIMATION OF CYLINDER		2017-10-30	15/797555		
CONDITIONS USING A	States of				
KNOCK SENSOR	America		1.450.7004		0=0.1=0.1
SYSTEM AND METHOD	United	2015-05-06	14/705081	2017-10-10	9784231
FOR DETERMINING KNOCK	States of				
MARGIN FOR MULTI-	America				
CYLINDER ENGINES		0015 00 00	4.464=:=:	2010 22 2	0000555
METHODS AND SYSTEMS	United	2015-02-09	14/617458	2018-02-27	9903778

Title	Country	Filed Date	App. Number	Grant Date	Patent
	N'		1.1		Number
TO DERIVE KNOCK	States of				
SENSOR CONDITIONS	America				
SYSTEM AND METHOD	United	2015-01-29	14/609416	2018-01-23	9874488
FOR DETECTING	States of				
OPERATING EVENTS OF AN	America				
ENGINE					
KNOCK SENSOR NETWORK	United	2015-04-01	14/676733		
SYSTEMS AND METHODS	States of				
FOR CHARACTERIZING	America				
NOISES					
PISTON ASSEMBLY FOR A	United	2015-01-12	14/595013	2017-12-19	9845765
RECIPROCATING ENGINE	States of				
	America				
SYSTEMS AND METHODS	United	2015-04-07	14/680863	2018-08-21	10054043
FOR ESTIMATING A TIME	States of				
OF AN ENGINE EVENT	America				
SYSTEM AND METHOD	United	2016-11-30	16/063386		
FOR IMPROVED JOURNAL	States of				
BEARING OPERATIONS	America				
METHODS AND SYSTEMS	United	2015-02-12	14/621028		
TO DERIVE ENGINE	States of				
COMPONENT HEALTH	America				
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	United	2015-03-24	14/667275	2017-03-14	9593631
FOR LOCATING AN ENGINE	States of				
EVENT	America				
SYSTEM AND METHOD	United	2015-05-11	14/709370	2017-10-31	9803698
HAVING COUPLING WITH	States of				
LAYERED PORTION	America				
SYSTEM AND METHOD	United	2015-04-14	14/686350	2016-09-06	9435244B1
FOR INJECTION CONTROL	States of				
OF UREA IN SELECTIVE	America				
CATALYST REDUCTION					
CYLINDER HEAD COVER	United	2015-09-08	14/847904		
WITH INTEGRAL SLEEVE	States of				
	America	2012000	1.1/0.0.1.5.5		22222
SYSTEM AND METHOD	United	2015-08-06	14/820156	2018-02-20	9897021
FOR DETERMINING	States of				
LOCATION AND VALUE OF	America				
PEAK FIRING PRESSURE	TT 1. 1	2015 07 05	1.4/50051	2010.00.00	0025025
SYSTEM AND METHOD	United	2015-07-02	14/790714	2018-03-27	9926836
FOR OXIDANT	States of				

Title	Country	Filed Date	App. Number	Grant Date	Patent
	*				Number
TEMPERATURE CONTROL	America				
SYSTEM AND METHOD OF	United	2017-10-27	15/796124		
VALVE WEAR DETECTION	States of				
	America				
REAL TIME DETECTION	United	2015-12-21	14/977226		
AND DIAGNOSIS OF	States of				
CHANGE IN PEAK FIRING	America				
PRESSURE					
FUEL SYSTEM FOR A	United	2015-08-28	14/839066	2018-04-10	9938933
COMBUSTION ENGINE	States of				
	America				
LAMINAR FLOW OF	United	2015-10-20	14/918013	2018-03-27	9926829
PISTON COOLING JETS	States of				
	America				
SYSTEM AND METHOD	United	2015-10-13	14/882198	2017-11-07	9810105
FOR CAMSHAFT	States of				
VIBRATION CONTROL	America				
A SYSTEM AND METHOD	United	2015-08-07	14/821427	2017-01-03	9537301
FOR GENERATOR	States of				
BRAKING	America				
SYSTEM AND METHOD	United	2015-08-10	15/751167		
FOR GENERATOR	States of				
BRAKING USING	America				
LAMINATED BRAKE					
COMPONENTS					
DUAL FUEL SYSTEM FOR A	United	2015-07-10	14/796768	2017-08-29	9745903
COMBUSTION ENGINE	States of				
	America				
ENGINE CONTROLLER	United	2016-09-15	15/265865		
AND METHODS FOR	States of				
CONTROLLING EMISSION	America				
AND POWER GENERATION					
SYSTEM USING THE SAME					
METHOD AND ENGINE	United	2016-09-22	15/272474		
CONTROLLER FOR	States of				
DIAGNOSING WASTE GATE	America				
VALVE MALFUNCTION					
AND RELATED POWER					
GENERATION SYSTEM					
AN ANNULAR RING	United	2015-09-28	14/867231		
GROOVE OF A PISTON	States of				
	America				
SYSTEMS AND METHODS	United	2015-06-29	14/754128	2017-10-10	9784635
FOR DETECTION OF	States of				

Title	Country	Filed Date	App. Number	Grant Date	Patent
	N.		1.1		Number
ENGINE COMPONENT	America				
CONDITIONS VIA					
EXTERNAL SENSORS					
METHOD AND SYSTEM	United	2015-06-29	14/754206		
FOR PORTABLE ENGINE	States of				
HEALTH MONITORING	America				
METHODS TO ADAPT AIR-	United	2015-11-16	14/942201	2018-02-13	9890723
FUEL (A/F) CONTROLS FOR	States of				
CATALYST AGING	America				
METHODS TO ADAPT	United	2015-11-16	14/942644	2018-06-19	10001046
REDUCTANT INJECTION	States of				
CONTROLS FOR CATALYST	America				
AGING					
SYSTEM AND METHOD	United	2015-08-19	14/830379	2018-01-16	9869257
FOR PREDICTING PEAK	States of				
PRESSURE VALUES USING	America				
KNOCK SENSOR					
SYSTEM AND METHOD	United	2017-07-12	15/648257		
FOR VALVE EVENT	States of				
DETECTION AND	America				
CONTROL					
COVER SYSTEM WITH	United	2015-08-05	14/818599	2017-05-30	9664284
GASKET SYSTEM	States of				
THEREFOR	America				
COATING OF A SYSTEM	United	2016-12-21	15/777673		
AND AN ASSOCIATED	States of				
METHOD THEREOF	America				
SYSTEM FOR MONITORING	United	2015-12-31	14/985899	2018-09-18	10077730
A PRECHAMBER OF AN	States of				
ENGINE	America				
SYSTEM FOR COOLING	United	2016-03-31	16/081467		
ENGINE INTAKE FLOW	States of				
	America				
SYSTEMS AND METHODS	United	2017-09-27	15/717914		
ADJUSTING FOR	States of				
AFTERTREATMENT	America				
SYSTEM CONDITION					
SYSTEMS AND METHODS	United	2017-09-27	15/717911		
ADJUSTING FOR	States of				
AFTERTREATMENT	America				
SYSTEM CONDITION AND					
CONTROL					
SYSTEM AND METHOD	United	2017-08-08	15/672286		
FOR DETECTING	States of				

Title	Country	Filed Date	App. Number	Grant Date	Patent
					Number
OPERATING EVENTS OF AN	America				
ENGINE VIA MIDI					
RECIPROCATING	United	2016-10-11	15/290746		
COMPRESSOR FLOW	States of				
SENSING	America				
KNOCK SENSOR SYSTEMS	United	2018-01-22	15/877363		
AND METHODS FOR	States of				
VALVE RECESSION	America				
CONDITIONS					
METHODS AND SYSTEMS	United	2018-06-25	16/017425		
FOR DIAGNOSING VALVE	States of				
DEFECTS IN	America				
RECIPROCATING					
COMPRESSORS					
TWO-STAGE	United	2017-01-17	15/397289		
RECIPROCATING	States of				
COMPRESSOR	America				
OPTIMIZATION CONTROL					
SYSTEM					
THERMALLY	United	2018-03-06	15/913585		
COMPENSATED BORE	States of				
GUIDE SYSTEMS AND	America				
METHODS					
SYSTEM FOR COOLING	United	2017-11-02	15/802375		
EXHAUST VALVE OF A	States of				
RECIPROCATING ENGINE	America				
SYSTEM AND METHOD	United	2017-09-18	15/707227		
FOR COMPRESSOR	States of				
SCHEDULING	America				
SYSTEM AND METHOD	United	2018-07-16	16/036019		
FOR PISTON RING	States of				
PROGNOSTIC	America				
EXHAUST	United	2018-04-12	15/951272		
AFTERTREATMENT	States of				
SYSTEM	America				
PISTON ASSEMBLY WITH	United	2017-12-06	15/833465		
OFFSET TIGHT LAND	States of				
PROFILE	America				
METHOD AND SYSTEM	United	2018-03-01	15/909673		
FOR GAS COMPRESSOR	States of				
CONTROL	America				

EXHIBIT B

TRADEMARKS

The trademark registrations and trademark applications listed below:

TRADEMARK	COUNTRY	OWNER	APP. NO.	APP. DATE	REG. NO.	REG. DATE
JENBACHER	WIPO	General Electric Company	1360306	29-Jun-17	1360306	29-Jun-17
JENBACHER	Belarus	General Electric Company	1360306	29-Jun-17	1360306	29-Jun-17
JENBACHER	Russian Federation	General Electric Company	1360306	29-Jun-17	1360306	29-Jun-17
JENBACHER	Kazakhstan	General Electric Company	1360306	29-Jun-17	1360306	29-Jun-17
JENBACHER	EUTM	General Electric Company	16218331	30-Dec-16	16218331	04-May-17
JENBACHER	United States of America	General Electric Company	87284158	29-Dec-16	5556448	04-Sep-18
MYPLANT	EUTM	General Electric Company	10026649	07-Jun-11	10026649	08-Nov-11
MYPLANT	United States of America	General Electric Company	85320114	13-May- 11	4144164	15-May-12
SERIES FOUR	EUTM	General Electric Company	2659225	18-Apr-02	2659225	10-Sep-03
SERIES FOUR	United States of America	General Electric Company	75672480	31-Mar- 99	2332327	21-Mar-00

EXHIBIT C

DOMAIN NAMES

The domain names listed below:

distributedpower.com
reciprocatingpower.com
reciprocatingpower.net
waukeshaengine.com
jenbacher.com
waukeshaengine.net
wedlink.net
jenbacher.net
information.jenbacher.com
epic.breezellp.com
reupwaukesha.com
myplant.com
myplant.io
training.jenbacher.com
training.jenbacher.com/app

INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT

This INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT ("Assignment"), effective as of November 2, 2018 ("Effective Date"), is by and between GENERAL ELECTRIC COMPANY, a New York corporation, with an office located at 41 Farnsworth Street, Boston, Massachusetts 02210, United States of America (the "Assignor") and AI ALPINE US BIDCO LLC, a Delaware corporation (file number 6921086) whose registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, City of Wilmington, County of New Castle, US-19801 Delaware, United States of America ("Assignee").

WHEREAS, Assignor and Assignce, among others, are party to that certain Share Purchase Agreement, dated as of 25 June, 2018 ("Purchase Agreement");

WHEREAS, under the terms of the Purchase Agreement, Assignor agreed to deliver and transfer to Assignee all of their right, title and interest in, to and under: (i) the patents and patent applications set forth on Exhibit A hereto, including all reissues, divisionals, continuations, continuations in-part, extensions, renewals and reexaminations thereof ("Patents");

; the Patents, collectively, the "Assigned IP"), and to execute this Assignment; and

WHEREAS, the Transferred Entities (as defined in the Purchase Agreement) possessed and exploited economic rights in the Assigned IP through the operation of the Business (as defined in the Purchase Agreement) prior to the Effective Date;

WHEREAS, under the terms of the Purchase Agreement, Assignee (Buyer 1, as defined under the Purchase Agreement) agreed to acquire the Assigned IP from Assignor.

NOW, THEREFORE, for good and valuable consideration, including the consideration reflected in the Purchase Agreement, the sufficiency and receipt of which is hereby acknowledged, Assignor and Assignee hereby agree as follows:

1. Assignor hereby assigns, transfers and conveys to Assignee its entire worldwide right, title and interest in, to and under the Assigned IP along with (i) all rights and privilege arising under applicable law with respect to Assignor's use of any of the Assigned IP; (ii)

anc

(iii) all rights of action pertaining to the Assigned IP, including, without limitation, all rights in and to all causes of action (whether in law or in equity) with respect thereto, the right to sue, counterclaim, and recover for past, present and future infringement of the Assigned IP or any rights relating to the Assigned IP, the right to secure registration of the Assigned IP and of this Assignment, the right to initiate and prosecute other proceedings before all government and administrative bodies with respect to the Assigned IP, and the right to claim priority, file foreign counterparts, and any and all other proceeds of any of the foregoing, including, but not limited to, all income, royalties, damages and payments now or hereafter due or payable with respect thereto.

- 2. This Assignment is binding upon, and inures to the benefit of, the parties hereto and their respective legal representatives, successors and assigns. It is understood that any finding of invalidity of one assignment as effected hereby shall not affect the assignment of other Assigned IP. All questions concerning the construction, validity and interpretation of this Assignment and the performance of the obligations imposed by this Assignment shall be governed by, and construed in accordance with, the laws of the State of New York without regard to any choice of law or conflict of law provision or rule that would cause the application of the laws of any other jurisdiction.
- 3. Upon reasonable request by Assignee, Assignor will execute additional documents and take other actions as may be necessary or desirable to record or memorialize the assignments of the Assigned IP, and to vest in Assignee such right, title and interest in and to the Assigned IP as assigned and transferred to Assignee hereunder;
- 4. Assignor hereby authorizes and requests the officials of the United States Patent and Trademark Office, and the corresponding entities or agencies in any applicable foreign jurisdiction, to record Assignee as assignee and owner of the entire right, title and interest in, to and under the Assigned IP.
- No waiver, modification or change of any of the provisions of this Assignment shall be valid unless in writing and signed by the party against whom such claimed waiver, modification or change is sought to be enforced.
- 6. This Assignment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Assignment delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Assignment.

IN WITNESS WHEREOF, the parties hereto, through their authorized representatives, have caused this Assignment to be duly executed and delivered as of the Effective Date.

As Assignor:	
GENERAL BLECTRIC COMPANY	7
By: JATU	
Name: SARA AGULLO SAI Title: Senior Monafry	MARANI Direct
As Assignee:	
AI ALPINE US BIDCO LLC	
Ву:	
Name:	
Title:	

[Signature Page to the Intellectual Property Assignment Agreement]

As Assignee:

AI ALPINE US BIDC

By:

Name: Title: Michael J. Ristamo

[Signature Page to the Intellectual Property Assignment Agreement]

#4848-3743-447

EXHIBIT A

PATENTS

The patents and patent applications listed below:

Title	Country	Filed Date	App. Number	Grant Date	Patent Number
SYSTEM AND METHOD FOR CONTROL OF EXHAUST GAS RECIRCULATION EGR UTILIZING PROCESS TEMPERATURES	Australia	2014-09-30	2014240195	2017-12-07	2014240195
METHODS AND SYSTEMS TO CHARACTERIZE NOISES SENSED BY A KNOCK SENSOR	Australia	2015-12-18	2015271937		
EXHAUST AFTERTREATEMENT SYSTEM WITH CATALYTIC DEACTIVATION MONITORING	Austria	2015-04-13	15163404.5	2018-02-28	2933449
SPARK PLUG ELECTRODE GAP SETTING TOOL	Austria	2015-10-05	15188410.3	2018-07-04	3006163
METHOD AND SYSTEM OF DIAGNOSING A KNOCK SENSOR	Austria	2016-02-05	16154442.4	2018-04-18	3054134
SYSTEM AND METHOD FOR DETECTING OPERATING EVENTS OF AN ENGINE	Austria	2016-01-28	16153229.6	2017-12-06	3051104
METHODS AND SYSTEMS TO CHARACTERIZE NOISES SENSED BY A KNOCK SENSOR	Austria	2015-12-21	15201539.2	2017-10-25	3040540
SYSTEMS AND METHODS FOR MODEL BASED CONTROL OF CATALYTIC CONVERTER SYSTEMS	Austria	2015-12-10	15199342.5	2018-10-03	3032076
SYSTEM AND METHOD FOR INJECTION CONTROL OF UREA IN SELECTIVE CATALYST REDUCTION	Austria	2016-04-13	16165045.2	2018-10-03	3081776

SYSTEM AND METHOD FOR INJECTION CONTROL	Austria	2016-04-13	16165045.2	2018-10-03	3081776
OF UREA IN SELECTIVE CATALYST REDUCTION					
ELECTROMAGNETIC BRAKING SYSTEMS AND METHODS	Brazil	2013-06-27	102013016638 -3		
Rich Burn Internal Combustion Engine Catalyst Control	Brazil	2014-02-05	102014002821 -8		
SYSTEM AND PROGRAM PRODUCT FOR CONTROLLING EXHAUST GAS TEMPERATURE OF ENGINE SYSTEM	Brazil	2014-12-10	102014030958 -6		
POWER GENERATION SYSTEM AND METHOD WITH FAULT RIDE THROUGH CAPABILITY	Brazil	2014-11-10	102014028062 -6		
ONBOARD CATALYST HEALTH MONITORING AND CONTROL SYSTEM ADAPTATION IN INTERNAL COMBUSTION ENGINES	Brazil	2014-11-17	102014028613 -6		
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	Brazil	2015-06-05	102015013117 -8		
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	Brazil	2015-06-05	102015013120 -8		
SYSTEM FOR CONTROLLING DEPOSITS ON CYLINDER LINER AND PISTON OF RECIPROCATING ENGINE	Brazil	2015-08-20	102015020090 -0		
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	Brazil	2015-06-05	102015013118 -6		
PISTON WITH REDUCED TOP LAND HEIGHT AND TIGHT TOP LAND PISTON PROFILE	Brazil	2015-01-13	10 2015 000764-7		

SYSTEMS AND METHODS FOR CONTROLLING EMISSIONS IN AN INTERNAL COMBUSTION	Brazil	2015-01-12	10 2015 000662-4	
ENGINE THROUGH THE CONTROL OF TEMPERATURE AT THE INLET OF AN AMMONIA SLIP CATALYST ASSEMBLY		*		
SYSTEMS AND METHODS FOR MODEL BASED CONTROL OF CATALYTIC CONVERTER SYSTEMS	Brazil	2015-12-10	102015030853 -1	
POWER GENERATION SYSTEM AND METHOD WITH RESISTIVE BRAKING CAPABILITY	Brazil	2015-12-10	102015030863 -9	
SYSTEMS AND METHODS FOR CONTROLLING AFTERTREATMENT SYSTEMS	Brazil	2016-02-25	102016004088 -4	
SYSTEM AND METHOD FOR LOCATING ENGINE NOISE	Brazil	2015-12-30	102015032948 -2	
KNOCK SENSOR SYSTEMS AND METHODS FOR DETECTION OF COMPONENT CONDITIONS	Brazil	2016-04-06	102016007574 -2	
SENSOR FOR DETERMINING ENGINE CHARACTERISTICS	Brazil	2015-12-22	102015032241 -0	
METHOD AND SYSTEM TO DETERMINE LOCATION OF PEAK FIRING PRESSURE	Brazil	2016-02-16	102016003195 -8	
SYSTEM AND METHOD FOR DETECTING RECIPROCATING DEVICE ABNORMALITIES UTILIZING STANDARD QUALITY CONTROL TECHNIQUES	Brazil	2016-01-06	102016000207 -9	

SYSTEM AND METHOD	Brazil	2016-02-01	102016002225	1	***************************************
FOR MODEL BASED AND			-8		
MAP BASED THROTTLE					
POSITION DERIVATION					
AND MONITORING					
INDUCTION GENERATOR	Brazil	2015-10-20	102015026557		
SYSTEM WITH A GRID-			-3		
LOSS RIDE-THROUGH					
CAPABILITY					
SYSTEMS AND METHODS	Brazil	2016-02-26	102016004249		
TO DISTINGUISH ENGINE			-6		
KNOCK FROM PISTON					
SLAP					
METHODS AND SYSTEMS	Brazil	2016-02-05	102016002606		
TO DERIVE KNOCK			-7		
SENSOR CONDITIONS			<u> </u>		
SYSTEM AND METHOD	Brazil	2016-01-28	102016001908		
FOR DETECTING			-7		
OPERATING EVENTS OF AN					
ENGINE					
PISTON ASSEMBLY FOR A	Brazil	2015-12-29	102015032852		
RECIPROCATING ENGINE	<u></u>		-4		
SYSTEMS AND METHODS	Brazil	2016-04-06	102016007569		
FOR ESTIMATING A TIME			-6		
OF AN ENGINE EVENT					
METHODS AND SYSTEMS	Brazil	2016-02-11	102016002862		
TO DERIVE ENGINE			-0		
COMPONENT HEALTH		**			
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL SYSTEM AND METHOD	l m:1	2016 02 10	102016005985		
FOR LOCATING AN ENGINE	Brazil	2016-03-18	3		
EVENT			-2		
January Commence of the Commen	i Canada	2012-08-02	2784423		
MANIFOLD GASKET ASSEMBLY	Canada	2012-00-02	2/84423		
Rich Burn Internal Combustion	Canada	2014-01-30	2841288	<u> </u>	
Engine Catalyst Control	Canada	2014-01-30	2041200		
LAMBDA VIRTUAL	Canada	2016-07-05	2994531		
SENSOR SYSTEMS AND	vanaua	2010-07-03	2774JJ1		
METHODS FOR A					
COMBUSTION ENGINE					
MANUSCO TOTA THACHAE	£:	5000 \$	<u>, 1</u> 000000000000000000000000000000000000	(

CONTRACTOR AND A STREET AND				·y·····	g
SYSTEM AND METHOD	Canada	2014-10-02	2867223		
FOR CONTROL OF					
EXHAUST GAS					
RECIRCULATION EGR	3				
UTILIZING PROCESS					
TEMPERATURES					
SYSTEM AND PROGRAM	Canada	2014-11-27	2874484		
PRODUCT FOR					
CONTROLLING EXHAUST					
GAS TEMPERATURE OF		3			
ENGINE SYSTEM		3			
POWER GENERATION	Canada	2014-11-06	2869806		
SYSTEM AND METHOD					
WITH FAULT RIDE					
THROUGH CAPABILITY					
ONBOARD CATALYST	Canada	2014-11-13	2870781	<u> </u>	<u> </u>
HEALTH MONITORING	Canada	2017711113	2010101		
AND CONTROL SYSTEM					
ADAPTATION IN			-		
INTERNAL COMBUSTION					
ENGINES	ļ				
POWER INTEGRATED	Canada	2015-02-12	2881669		
SYSTEM AND METHOD					
FOR DRILLING RIG AND					
OIL/GAS PRODUCTION			:		
EQUIPMENT					
CYLINDER HEAD	Canada	2016-05-26	2988569		
ACCELERATION					
MEASUREMENT FOR					
VALVE TRAIN					
DIAGNOSTICS SYSTEM					
AND METHOD					
SYSTEM AND METHOD	Canada	2015-08-06	2994691		
FOR ENGINE CONTROL					
SYSTEMS AND METHODS	Canada	2015-01-08	2877006	************************************	
FOR CONTROLLING			recess Technology		
EMISSIONS IN AN			***************************************		
INTERNAL COMBUSTION			***************************************		
ENGINE THROUGH THE					
CONTROL OF	\				
TEMPERATURE AT THE	N.				
INLET OF AN AMMONIA	***************************************				
SLIP CATALYST	N. Company				
	\$ \$ \$ \$				
ASSEMBLY	. E	}	}		

SYSTEMS AND METHODS	Canada	2016-02-18	2921267		
FOR CONTROLLING					
AFTERTREATMENT					
SYSTEMS					
KNOCK SENSOR SYSTEMS	Canada	2016-04-14	2927277		
AND METHODS FOR					
DETECTION OF					
COMPONENT CONDITIONS			.500000011		
SENSOR FOR	Canada	2015-12-17	2915466		
DETERMINING ENGINE	30.700	1000 0000			
CHARACTERISTICS					
METHOD AND SYSTEM TO	Canada	2016-02-11	2920486	***************************************	***************************************
DETERMINE LOCATION OF					
PEAK FIRING PRESSURE					
SYSTEM AND METHOD	Canada	2015-12-30	2916466		
FOR DETECTING		-			
RECIPROCATING DEVICE					
ABNORMALITIES					
UTILIZING STANDARD					
QUALITY CONTROL					
TECHNIQUES					
SYSTEM AND METHOD	Canada	2016-06-28	2989640		+
FOR DETECTION OF	Cunacu	2010-00-20	2707070		
CHANGES TO					
COMPRESSION RATIO AND					
PEAK FIRING PRESSURE OF					
AN ENGINE					
SYSTEMS AND METHODS	Canada	2016-02-25	2921934		
TO DISTINGUISH ENGINE	Canada	2010-02-23	2921934		
KNOCK FROM PISTON					
SLAP					
METHODS AND SYSTEMS	Canada	2016-01-28	2919242		
TO DERIVE KNOCK	Vallatia	2010-01-20	2919292		
SENSOR CONDITIONS					
P. C.	C3	2016 01 21	2918914		
SYSTEM AND METHOD	Canada	2016-01-21	2910914		
FOR DETECTING					
OPERATING EVENTS OF AN					
ENGINE	ļ~,·	2012 12 10	2015200		
METHODS AND SYSTEMS	Canada	2015-12-18	2915789		
TO CHARACTERIZE NOISES					, i
SENSED BY A KNOCK				1	i i
SENSOR	ļ		L		
KNOCK SENSOR NETWORK	Canada	2016-03-18	2981258		
SYSTEMS AND METHODS					
FOR CHARACTERIZING					ì
NOISES			<u> </u>		

SYSTEMS AND METHODS	Canada	2016-03-24	2924930	T	
FOR ESTIMATING A TIME	Canada	2010-03-24	2929330		
OF AN ENGINE EVENT					
METHODS AND SYSTEMS	Canada	2016-01-28	2919241		•
TO DERIVE ENGINE	Cuitacu	2010-01-20	2717271		
COMPONENT HEALTH					
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	Canada	2016-03-10	2923277	†	†
FOR LOCATING AN ENGINE	V.u.u.v.u	2010 00 10	~		
EVENT					
SYSTEM AND METHOD	Canada	2016-03-30	2925371	+	,
FOR INJECTION CONTROL	Common	20.0 00 00	23237		
OF UREA IN SELECTIVE	*				
CATALYST REDUCTION					
SYSTEM AND METHOD	Canada	2016-06-08	2989594	·	1
FOR OXIDANT	Canada	2010 00 00	2,0,2,5,1		
TEMPERATURE CONTROL					
DUAL FUEL SYSTEM FOR A	Canada	2016-06-23	2991405		-
COMBUSTION ENGINE	Countries	2000000			
RECIPROCATING	Canada	2017-10-05	2981535		
COMPRESSOR FLOW	C. Carraco		M . 22 1 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3		
SENSING					
JOINT-LESS CONTNUOUS	Canada	2017-11-30	2987167	}	
JOURNAL BEARINGS					
TURBINE EXHAUST	China	2010-08-27	201010272882	2014-11-19	20101027288
RECIRCULATION SYSTEM			9	-	2.9
AND METHOD					
ELECTROMAGNETIC	China	2013-06-28	201310263947	2017-06-13	103516272
BRAKING SYSTEMS AND			.7		
METHODS	1	· i			
VARIABLE THICKNESS	China	2013-06-20	201310246012	2018-06-12	103511112
COATING FOR CYLINDER			8		
LINER					
SYSTEM AND METHOD OF	China	2016-09-16	201680079344	<u> </u>	
EXHAUST GAS			3		
RECIRCULATION					
SYSTEM FOR COOLING	China	2014-03-04	201410075996	2018-09-18	104033231
POWER GENERATION			.2		
SYSTEM					
MANIFOLD GASKET	China	2012-08-09	201210281970	2017-10-03	102953863
ASSEMBLY			4		TOTAL STATES
Rich Burn Internal Combustion	China	2014-02-07	201410044952		
Engine Catalyst Control	\$150 C 150 C 150 C		3		
Engine Catalyst Control	L]5	1	<u>j</u>

EMISSIONS CONTROL IN	China	2014-11-21	201410674311		
DIESEL ENGINES	<u> </u>		.6		
SYSTEM AND METHOD	China	2014-10-10	201410532349	2018-05-29	104564373
FOR CONTROL OF	-		.X		
EXHAUST GAS					
RECIRCULATION EGR					
UTILIZING PROCESS					
TEMPERATURES	-				
SYSTEM AND PROGRAM	China	2014-12-11	201410766769		
PRODUCT FOR	0000 00000	200000000000 46 00 0000	,4		
CONTROLLING EXHAUST					
GAS TEMPERATURE OF					
ENGINE SYSTEM					
GASEOUS REDUCTANT	China	2014-10-24	201410573905		
INJECTION CONTROL	Cattata	-7., ., -,	.8		
SYSTEM			.0		
POWER GENERATION	China	2014-11-20	201410666181	<u> </u>	
	China	2014-11-20			
SYSTEM AND METHOD			.1 .		
WITH FAULT RIDE	i				
THROUGH CAPABILITY					
SYSTEM AND METHOD	China	2013-07-18	201310303270		
FOR POWER GENERATION			.5		
ONBOARD CATALYST	China	2014-11-19	201410663180		
HEALTH MONITORING			.1		
AND CONTROL SYSTEM					
ADAPTATION IN					
INTERNAL COMBUSTION					
ENGINES	***************************************			:	
Systems and Methods for	China	2014-09-26	201410501113		
Monitoring Catalyst			X		
Deactivation and Controlling an					
Air/Fuel Ratio	V.				
POWER INTEGRATED	China	2014-02-18	201410054131		
SYSTEM AND METHOD	~211111		.8		
FOR DRILLING RIG AND					
OIL/GAS PRODUCTION					
EQUIPMENT					
PISTON ASSEMBLY FOR A	Chier	2015 06 00	201610207046	ļ	
§	China	2015-06-08	201510307846		
RECIPROCATING ENGINE	(C11:)	2015 25 25	.4		
PISTON ASSEMBLY FOR A	China	2015-06-08	201510307887		
RECIPROCATING ENGINE	<u> </u>		3	<u> </u>	1
SYSTEM FOR	China	2015-08-21	201510516803		
CONTROLLING DEPOSITS		ince	.7		
ON CYLINDER LINER AND		ننتن			
PISTON OF					
RECIPROCATING ENGINE		i			

PISTON ASSEMBLY FOR A	China	2015-06-05	201510301908		
RECIPROCATING ENGINE			.0		
BASE-FRAME ASSEMBLY	China	2016-05-12	201610311144	***************************************	
FOR A COMBUSTION			.8		
ENGINE					
PISTON WITH REDUCED	China	2015-01-14	201510017775		
TOP LAND HEIGHT AND			,4		
TIGHT TOP LAND PISTON					
PROFILE	22				
SYSTEMS AND METHODS	China	2015-01-14	201510017707		
FOR CONTROLLING			.8		
EMISSIONS IN AN					
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
CONDITION BASED	China	2016-03-04	201610123829		
ENGINE PARTS			.X		
MONITORING					
SYSTEM AND METHOD	China	2015-07-24	201510440604		
FOR IMPROVING	i		.2		
RESPONSE TIME OF A					
BRAKING UNIT			<u> </u>		
SYSTEMS AND METHODS	China	2015-12-11	201511036234		
FOR MODEL BASED			.2		
CONTROL OF CATALYTIC					
CONVERTER SYSTEMS	1	4			
DRILLING SYSTEM AND	China	2014-06-18	201410272958		
POWER SUPPLY METHOD			1.6		1
SPARK PLUG ELECTRODE	China	2015-10-08	201510643403		
GAP SETTING TOOL	2227		.2		
POWER GENERATION	China	2015-12-11	201510912307		
SYSTEM AND METHOD		*	.3		
WITH RESISTIVE BRAKING		*			Ĭ
CAPABILITY	ļ.,,,	101202	001/101/2012	***************************************	ļi
SYSTEMS AND METHODS	China	2016-03-02	201610116846		
FOR CONTROLLING		•	.0		
AFTERTREATMENT					
SYSTEMS	<u> </u>	3016 12 21	30161102606		-
SYSTEM AND METHOD	China	2015-12-31	201511036326		
FOR LOCATING ENGINE			.0		
NOISE	1	<u> </u>	1		<u> </u>

ENORE CENOOD OVETENS	lm::	2016 04 33	301/(103/23130)	
KNOCK SENSOR SYSTEMS	China	2010-04-22	201610253130	
AND METHODS FOR		***************************************	.5	
DETECTION OF				
COMPONENT CONDITIONS			ļ	
SENSOR FOR	China	2016-01-08	201610011336	
DETERMINING ENGINE			7	
CHARACTERISTICS		<u> </u>		
METHOD AND SYSTEM TO	China	2016-02-19	201610092672	
DETERMINE LOCATION OF			.9	
PEAK FIRING PRESSURE				
SYSTEM AND METHOD	China	2016-01-07	201610223627	
FOR DETECTING			1.2	
RECIPROCATING DEVICE				
ABNORMALITIES				
UTILIZING STANDARD				
OUALITY CONTROL				
TECHNIQUES				
SYSTEM AND METHOD	China	2016-02-04	201610078918	
FOR MODEL BASED AND	Cinna	2010-02-04	(7)	
1			7	
MAP BASED THROTTLE				
POSITION DERIVATION				
AND MONITORING				
INDUCTION GENERATOR	China	2015-10-20	201510678495	
SYSTEM WITH A GRID-			1.8	
LOSS RIDE-THROUGH	88			
CAPABILITY				
SYSTEMS AND METHODS	China	2016-03-11	201610138320	
TO DISTINGUISH ENGINE			.2	
KNOCK FROM PISTON				
SLAP	<u>.</u>	NAME		
SYSTEM AND METHOD	China	2015-12-31	201511016005	
FOR REGULATING			4	
EXHAUST GAS				
RECIRCULATION IN AN				
ENGINE				
METHODS AND SYSTEMS	China	2016-02-05	201610081794	
TO DERIVE KNOCK	Camina	2010-02-05	8	
SENSOR CONDITIONS			Σ.Ω	
SYSTEM AND METHOD	l Kari	2016 01 20	201610264664	
	China	2016-01-29		
FOR DETECTING			.8	
OPERATING EVENTS OF AN				
ENGINE	<u> </u>			
METHODS AND SYSTEMS	China	2015-12-31	201511014250	
TO CHARACTERIZE NOISES	i iii		11	
SENSED BY A KNOCK	with the second			
SENSOR		<u> </u>		

KNOCK SENSOR NETWORK	China	2016-03-18	201680032117	}	
SYSTEMS AND METHODS	Cinna	2010-02-10	5		
FOR CHARACTERIZING			12		
NOISES					
}	i Alim	2016 01 12	201610017166		
PISTON ASSEMBLY FOR A	China	2016-01-12	201610017155		
RECIPROCATING ENGINE		100000000000000000000000000000000000000	1.5		
SYSTEMS AND METHODS	China	2016-04-07	201610212034		
FOR ESTIMATING A TIME			.6		
OF AN ENGINE EVENT					
METHODS AND SYSTEMS	China	2016-02-05	201610264663		
TO DERIVE ENGINE			3		
COMPONENT HEALTH					
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	China	2016-03-24	201610172512		
FOR LOCATING AN ENGINE			.5		
EVENT					
SYSTEM AND METHOD	China	2016-04-14	201610229670	<u> </u>	
FOR INJECTION CONTROL			X		
OF UREA IN SELECTIVE					
CATALYST REDUCTION	**				
SYSTEM AND METHOD	China	2015-08-10	201580082360	†	†
FOR GENERATOR	Cima	2010-06-10	3		
BRAKING USING			17		
LAMINATED BRAKE					
COMPONENTS					
}		2012 06 22	201680040832	ļ	-
DUAL FUEL SYSTEM FOR A	Ciina	2016-06-23	201000040032		
COMBUSTION ENGINE	} }	20120231	.3	ļ	<u> </u>
SYSTEMS AND METHODS	China	2016-06-24	201680038696	.	
FOR DETECTION OF			.4		
ENGINE COMPONENT					
CONDITIONS VIA					
EXTERNAL SENSORS	ļ				
METHODS TO ADAPT AIR-	China	2016-09-16	201680079064		
FUEL A/F CONTROLS FOR			.2		
CATALYST AGING					
RECIPROCATING	China	2017-10-11	201710941548		
COMPRESSOR FLOW			X		
SENSING					
JOINT-LESS CONTNUOUS	China	2017-12-15	201711360707		
JOURNAL BEARINGS			.3		
Optimized cylinder head	China				
exhaust port and water-cooled					
exhaust valve guide for					
maximum cooling of the guide					
manifer Coording Or 100 Edition	L	<u></u>		L	<i>4</i>

SYSTEM AND METHOD FOR COMPRESSOR SCHEDULING	China	2018-09-18	201811087260 .1	
SYSTEM AND METHOD FOR RECOVERING WASTE HEAT	European Patent	2008-06-16	08771164.4	
SPIRAL RECUPERATIVE HEAT EXCHANGING SYSTEM	European Patent	2010-11-16	10191410.9	
SYSTEM AND METHOD FOR GENERATING AND STORING TRANSIENT INTEGRATED ORGANIC RANKINE CYCLE ENERGY	European Patent	2011-06-09	11727078.5	
AUTO OPTIMIZING CONTROL SYSTEM FOR ORGANIC RANKINE CYCLE PLANTS	European Patent	2011-02-11	11706673.8	
ELECTROMAGNETIC BRAKING SYSTEMS AND METHODS	European Patent	2013-06-25	13173645.6	
INTEGRATION OF WASTE HEAT FROM CHARGE AIR COOLING INTO A CASCADED ORGANIC RANKINE CYCLE SYSTEM	European Patent	2012-04-20	12164863.8	
Method of attachment of precious metal electrodes to spark plugs	European Patent	2013-01-23	13152344.1	
METHOD OF PRODUCING AN ELECTRODE SUPPORT USING BRAZING	European Patent	2013-01-23	13152345.8	
SYSTEM FOR COOLING POWER GENERATION SYSTEM	European Patent	2014-02-25	14156576.2	
GAS DOSAGE CONTROL FOR GAS ENGINE	European Patent	2014-05-07	14167312.9	
Rich Burn Internal Combustion Engine Catalyst Control	European Patent	2014-02-04	14153733.2	
LAMBDA VIRTUAL SENSOR SYSTEMS AND METHODS FOR A COMBUSTION ENGINE	European Patent	2016-07-05	16747652.2	

SYSTEM AND METHOD	European	2014-10-07	14187998.1	~	
FOR CONTROL OF	Patent				
EXHAUST GAS					
RECIRCULATION EGR					
UTILIZING PROCESS					
TEMPERATURES):				
SYSTEM AND PROGRAM	European	2014-12-10	14197241.4		
PRODUCT FOR	Patent				
CONTROLLING EXHAUST					
GAS TEMPERATURE OF					
ENGINE SYSTEM					
GASEOUS REDUCTANT	European	2014-10-17	14189312.3	***************************************	
INJECTION CONTROL	Patent				
SYSTEM					
POWER GENERATION	European	2014-11-19	14193938.9		
SYSTEM AND METHOD	Patent	20			
WITH FAULT RIDE	1 410111				
THROUGH CAPABILITY					
ONBOARD CATALYST	European	2014-11-17	14193523.9	·	
HEALTH MONITORING	Patent	2014-11-11	19173323.7		
AND CONTROL SYSTEM	Fatcin				
ADAPTATION IN					
INTERNAL COMBUSTION					
ENGINES					
<u> </u>	<u></u>	2015 05 20	3.53.4005.4.5		
PISTON ASSEMBLY FOR A	European Patent	2015-05-29	15169854.5		
RECIPROCATING ENGINE	~ ,	2011 00 20	3.6222026.6		
CYLINDER HEAD	European	2016-05-26	16732026.6		
ACCELERATION	Patent				
MEASUREMENT FOR					
VALVE TRAIN					
DIAGNOSTICS SYSTEM					
AND METHOD	1				
PISTON ASSEMBLY FOR A	European	2015-06-04	15170678.5		
RECIPROCATING ENGINE	Patent				
SYSTEM FOR	European	2015-08-17	15181236.9		
CONTROLLING DEPOSITS	Patent				
ON CYLINDER LINER AND					
PISTON OF					
RECIPROCATING ENGINE					
SYSTEM AND METHOD	European	2015-08-06	15753266.4		
FOR ENGINE CONTROL	Patent	5000 1000 50000000000			
EMISSION CONTROL IN	European	2015-03-16	15159209.4		
RICH BURN NATURAL GAS	Patent		0 1000 N.000000		
ENGINES		18 (1900)			
PISTON ASSEMBLY FOR A	European	2015-06-04	15170677.7		
RECIPROCATING ENGINE	Patent		- coccoscocccodt 10		***************************************

BASE-FRAME ASSEMBLY FOR A COMBUSTION ENGINE	European Patent	2016-05-10	16169002.9		
PISTON WITH REDUCED TOP LAND HEIGHT AND TIGHT TOP LAND PISTON PROFILE	European Patent	2015-01-13	15151029.4		
SYSTEMS AND METHODS FOR IN-CYLINDER PRESSURE ESTIMATION USING PRESSURE WAVE MODELING	European Patent	2016-09-16	16770646.4		
CONDITION BASED ENGINE PARTS MONITORING	European Patent	2016-02-26	16157724.2		
SYSTEM AND METHOD FOR IMPROVING RESPONSE TIME OF A BRAKING UNIT	European Patent	2015-07-22	15177889.1		
SYSTEMS AND METHODS FOR MODEL BASED CONTROL OF CATALYTIC CONVERTER SYSTEMS	European Patent	2015-12-10	15199342.5	2018-10-03	3032076
EXHAUST AFTERTREATEMENT SYSTEM WITH CATALYTIC DEACTIVATION MONITORING	European Patent	2015-04-13	15163404.5	2018-02-28	2933449
SYSTEMS AND METHODS FOR DETECTING ANOMALIES AT IN- CYLINDER PRESSURE SENSORS	European Patent	2016-10-20	16794786.0		
SPARK PLUG ELECTRODE GAP SETTING TOOL	European Patent	2015-10-05	15188410.3	2018-07-04	3006163
POWER GENERATION SYSTEM AND METHOD WITH RESISTIVE BRAKING CAPABILITY	European Patent	2015-11-30	15197002.7		
SYSTEMS AND METHODS FOR CONTROLLING AFTERTREATMENT SYSTEMS	European Patent	2016-03-01	16158069.1		
SYSTEM AND METHOD FOR LOCATING ENGINE NOISE	European Patent	2015-12-17	15200682,1		

KNOCK SENSOR SYSTEMS	European	2016-04-19	16166053.5		
AND METHODS FOR	Patent	2010-04-13	10100055.5		
DETECTION OF	i atent				
COMPONENT CONDITIONS					
SENSOR FOR	European	2016-01-05	16150239.8		
DETERMINING ENGINE	Patent	2010-01-00	10130237.0		
CHARACTERISTICS	i arcsir				
METHOD AND SYSTEM TO	European	2016-02-17	16156064.4		
DETERMINE LOCATION OF	Patent	2010-02-17	10130004.4		
PEAK FIRING PRESSURE	i aiciii				
}	Danamana	2016-01-05	16150238.0		
SYSTEM AND METHOD	European	2010-01-05	10130238.0		
FOR DETECTING	Patent				
RECIPROCATING DEVICE					
ABNORMALITIES UTILIZING STANDARD					
QUALITY CONTROL					
TECHNIQUES SYSTEM AND METHOD	.	2014 03 03	17152040 4	3010 07 35	2064122
	European	2016-02-02	16153942.4	2018-07-25	3054133
FOR MODEL BASED AND	Patent				
MAP BASED THROTTLE					
POSITION DERIVATION					
AND MONITORING		2017 10 16	1,51,000,42		
INDUCTION GENERATOR	European	2015-10-16	15190243.4		
SYSTEM WITH A GRID-	Patent				
LOSS RIDE-THROUGH					
CAPABILITY	8-7	0017.11.07	171070701		
SYSTEM AND METHOD OF	European	2015-11-27	15196878.1		
COOLING VALVE WITH	Patent				
MATERIAL IN CAVITY					
SYSTEM AND METHOD	European	2016-06-28	16739315.6		
FOR DETECTION OF	Patent				
CHANGES TO					
COMPRESSION RATIO AND					
PEAK FIRING PRESSURE OF					
AN ENGINE	1		ļ		
SYSTEMS AND METHODS	European	2016-03-08	16159267.0		
TO DISTINGUISH ENGINE	Patent				
KNOCK FROM PISTON					
SLAP					
SYSTEM AND METHOD	European	2015-12-22	15201874.3		300 y 300 40000000 AAAG0300000000000000000000000000
FOR REGULATING	Patent				
EXHAUST GAS					
RECIRCULATION IN AN					
ENGINE					

METHOD AND SYSTEM OF	European	2016-02-05	16154442.4	2018-04-18	3054134
DIAGNOSING A KNOCK SENSOR	Patent				
KNOCK SENSOR NETWORK SYSTEMS AND METHODS	European Patent	2016-03-18	16712169.8		
FOR CHARACTERIZING NOISES	r acom				
PISTON ASSEMBLY FOR A	European	2016-01-05	16150208.3	- 	
RECIPROCATING ENGINE	Patent	Y Y Y Y Y Y Y Y			
SYSTEMS AND METHODS	European	2016-04-04	16163698.0		
FOR ESTIMATING A TIME	Patent				
OF AN ENGINE EVENT					
SYSTEM AND METHOD	European	2016-11-30	16816510.8		
FOR IMPROVED JOURNAL	Patent				
BEARING OPERATIONS					
METHODS AND SYSTEMS	European	2016-02-05	16154444.0		
TO DERIVE ENGINE	Patent				
COMPONENT HEALTH					
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	European	2016-03-22	16161757.6		
FOR LOCATING AN ENGINE	Patent				
EVENT					
SYSTEM AND METHOD	European	2016-04-13	16165045.2	2018-10-03	3081776
FOR INJECTION CONTROL	Patent				
OF UREA IN SELECTIVE					
CATALYST REDUCTION		2016-06-08	16774000 1		
SYSTEM AND METHOD FOR OXIDANT	European Patent	2010-00-08	16734080.1		
TEMPERATURE CONTROL	Fatchi				
LAMINAR FLOW OF	European	2016-10-18	16791481.1		
PISTON COOLING JETS	Patent	2010-10-10	10/2/301.1		
SYSTEM AND METHOD	European	2016-09-29	16781935 8		
FOR CAMSHAFT	Patent	DOTO US DS	,0,0,555.0		
VIBRATION CONTROL					
SYSTEM AND METHOD	European	2015-08-10	15753817.4		
FOR GENERATOR	Patent	person on Tabada Malinda	g passace - 1565 999 856 1 		
BRAKING USING	∳ar seadais€ }				
LAMINATED BRAKE					
COMPONENTS	*				
DUAL FUEL SYSTEM FOR A	European	2016-06-23	16735969.4		
COMBUSTION ENGINE	Patent				
AN ANNULAR RING	European	2016-09-16	16778524.5		
GROOVE OF A PISTON	Patent				

COATING OF A SYSTEM AND AN ASSOCIATED METHOD THEREOF	European Patent	2016-12-21	16831799,8		
SYSTEM FOR COOLING ENGINE INTAKE FLOW	European Patent	2016-03-31	16719585.8		
RECIPROCATING COMPRESSOR FLOW SENSING	European Patent	2017-10-11	17195939.8		
JOINT-LESS CONTNUOUS JOURNAL BEARINGS	European Patent	2017-12-07	17205970.1		
TWO-STAGE RECIPROCATING COMPRESSOR OPTIMIZATION CONTROL SYSTEM	European Patent	2017-12-06	17205760.6		
SYSTEM AND METHOD FOR PISTON RING PROGNOSTIC	European Patent	2018-08-10	18188516.1		
SYSTEM AND METHOD OF VALVE WEAR DETECTION	European Patent	2018-10-24	18202350.7		
ORGANIC RANKINE CYCLE SYSTEMS USING WASTE HEAT FROM CHARGE AIR COOLING	Finland	2012-05-03	12166544.2	2016-04-13	2522828
Mixing chamber with spiral channels	Finland	2012-06-07	12171197.2	2016-08-10	2671630
CYLINDER LINER WITH SLOTS	Finland	2015-03-30	20155221		
VARIABLE THICKNESS COATINGS FOR CYLINDER LINERS	France	2013-06-20	13173010.3	2017-08-09	2677152
EMISSIONS CONTROL IN STATIONARY RICH BURN ENGINES	France	2014-07-01	14175159.4	2017-12-13	2821609
SYSTEMS AND METHODS FOR CONTROLLING EMISSIONS IN AN INTERNAL COMBUSTION ENGINE THROUGH THE CONTROL OF TEMPERATURE AT THE INLET OF AN AMMONIA SLIP CATALYST ASSEMBLY	France	2015-01-13	15150923.9	2017-08-16	2894306

EXHAUST	France	2015-04-15	15163722.0	2017-06-14	2933450
AFTERTREATMENT SYSTEM WITH AGING MONITORING OF AN					
AMMONIA SLIP CATALYST	<u> </u>				
METHOD AND SYSTEM FOR CONTROL OF EMISSIONS IN EXHAUST AFTERTREATMENT SYSTEM	France	2015-12-09	15198666.8	2017-08-16	3032057
ORGANIC RANKINE CYCLE SYSTEMS USING WASTE HEAT FROM CHARGE AIR COOLING	Germany (Federal Republic of)	2012-05-03	12166544.2	2016-04-13	60201201696 0.5
VARIABLE THICKNESS COATINGS FOR CYLINDER LINERS	Germany (Federal Republic of)	2013-06-20	13173010.3	2017-08-09	60201302466 2.9
SYSTEMS AND METHODS FOR SPARK TIMING RETARDATION	Germany (Federal Republic of)				
Mixing chamber with spiral channels	Germany (Federal Republic of)	2012-06-07	12171197.2	2016-08-10	2671630
SYSTEM AND METHOD OF EXHAUST GAS RECIRCULATION	Germany (Federal Republic of)	2016-09-16	112016004875 .0		
MANIFOLD GASKET ASSEMBLY	Germany (Federal Republic of)	2012-08-07	102012107220 .5		
EMISSIONS CONTROL IN STATIONARY RICH BURN ENGINES	Germany (Federal Republic of)	2014-07-01	14175159,4	2017-12-13	60201401840 0.6
SYSTEMS AND METHODS FOR CONTROLLING EMISSIONS IN AN INTERNAL COMBUSTION ENGINE THROUGH THE CONTROL OF TEMPERATURE AT THE INLET OF AN AMMONIA	Germany (Federal Republic of)	2015-01-13	15150923.9	2017-08-16	60201500406 7.8
SLIP CATALYST ASSEMBLY					***

EXHAUST	Germany	2015-04-15	15163722.0	2017-06-14	60201500306
AFTERTREATMENT	(Federal				5.6
SYSTEM WITH AGING	Republic of)				wini
MONITORING OF AN AMMONIA SLIP CATALYST	******				Virialian
CYLINDER LINER WITH	ļ.,	2015-04-07	102015105223		
SLOTS	Germany (Federal	2013-04-07	102013103223		
SLU19	Republic of)				
DRILLING SYSTEM AND	Germany	2015-06-18	102015109723		
POWER SUPPLY METHOD	(Federal		.0		
	Republic of)				
EXHAUST	Germany	2015-04-13	15163404.5	2018-02-28	60201500822
AFTERTREATEMENT	(Federal				8.1
SYSTEM WITH CATALYTIC	Republic of)				
DEACTIVATION					
MONITORING				<u> </u>	
SPARK PLUG ELECTRODE	Germany	2015-10-05	15188410.3	2018-07-04	60201501294
GAP SETTING TOOL	(Federal				3.1
	Republic of)	ļ			
METHODS AND SYSTEMS	Germany	2016-06-08	112016002802		
TO CONTROL EXHAUST	(Federal		.4		
GAS RECIRCULATION	Republic of)				
METHOD AND SYSTEM	Germany	2015-12-09	15198666.8	2017-08-16	60201400415
FOR CONTROL OF	(Federal				9.3
EMISSIONS IN EXHAUST	Republic of)				***************************************
AFTERTREATMENT					
SYSTEM	ļ	2012 07 04	11001700000		
SYSTEM AND METHOD	Germany	2016-05-04	112016002038		
FOR DETERMINING KNOCK	(Federal		.4		
MARGIN FOR MULTI- CYLINDER ENGINES	Republic of)				
METHOD AND SYSTEM OF	C	2016-02-05	16154442.4	2018-04-18	60201600242
DIAGNOSING A KNOCK	Germany (Federal	2010-02-03	10134442.4	2010-04-10	2.5
SENSOR	{ \				2
SYSTEM AND METHOD	Republic of)	2016-01-28	16153229.6	2017-12-06	60201600007
FOR DETECTING	Germany (Federal	2010-01-20	10133227.0	2017-12-00	60201600097 7.3
OPERATING EVENTS OF AN	Republic of)				(· · · ·
ENGINE	irrhanin ai)				***
METHODS AND SYSTEMS	Germany	2015-12-21	15201539.2	2017-10-25	60201500559
	(Federal	2013-12-21	3 3 2 6 4 3 3 3 7 2 2	2017-10-23	6.9
SENSED BY A KNOCK	Republic of)				
SENSOR	mapaoino or)				

SYSTEMS AND METHODS	Germany	2016-06-24	112016002938		
FOR DETECTION OF	(Federal	2010-00-24	112010002930		
ENGINE COMPONENT	Republic of)				
CONDITIONS VIA	exchange on				
EXTERNAL SENSORS					
		2017 00 17	11201/005040		
METHODS TO ADAPT AIR-	Germany	2016-09-16	112016005242		
FUEL A/F CONTROLS FOR	(Federal		j. l		
CATALYST AGING	Republic of)	1	ļ	ļ	
METHODS TO ADAPT	Germany	2016-09-16	112016005241		
REDUCTANT INJECTION	(Federal		1.3		
CONTROLS FOR CATALYST	Republic of)				
AGING					
SYSTEM AND METHOD	Germany	2018-07-03	102018116027		
FOR VALVE EVENT	(Federal		.5		
DETECTION AND	Republic of)				
CONTROL					
SYSTEM AND METHOD	Germany	2018-08-02	10 2018 118		
FOR DETECTING	(Federal		775.0		
OPERATING EVENTS OF AN	Republic of)				
ENGINE VIA MIDI					
Optimized cylinder head	Germany			1	
exhaust port and water-cooled	(Federal				
exhaust valve guide for	Republic of)				
maximum cooling of the guide					
SYSTEM AND METHOD	Germany	2018-09-17	102018122694	<u> </u>	
FOR COMPRESSOR	(Federal	2010-02-11	1.2		
SCHEDULING	Republic of)		**		
PISTON ASSEMBLY WITH	Germany	 			
OFFSET TIGHT LAND	(Federal				
PROFILE	Republic of)				
SYSTEMS AND METHODS	·i.	2015 12 10	151002425	2010 10 02	60001501740
	Germany	2015-12-10	15199342.5	2018-10-03	60201501742
FOR MODEL BASED	(Federal				5.9
CONTROL OF CATALYTIC	Republic of)				
CONVERTER SYSTEMS					
SYSTEM AND METHOD	Germany	2016-04-13	16165045.2	2018-10-03	60201600614
FOR INJECTION CONTROL	(Federal				6.5
OF UREA IN SELECTIVE	Republic of)				
CATALYST REDUCTION					
SYSTEM AND METHOD	Germany	2016-04-13	16165045.2	2018-10-03	60201600614
FOR INJECTION CONTROL	(Federal				6.5
OF UREA IN SELECTIVE	Republic of)	•	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
CATALYST REDUCTION	ineres secucioses ineres secucioses				
SYSTEM AND METHOD	India	2007-12-24	3086/CHE/200		
FOR BALANCING LOAD IN		81 81	7		
POWER BLOCKS	\$55 - 55555555				

ELECTROMAGNETIC BRAKING SYSTEMS AND	India	2013-06-05	1686/DEL/201 3	
METHODS SYSTEM FOR COOLING POWER GENERATION SYSTEM	India	2014-02-28	1042/CHE/201 4	
Rich Burn Internal Combustion Engine Catalyst Control	India	2014-02-03	485/CHE/2014	
SYSTEM AND PROGRAM PRODUCT FOR CONTROLLING EXHAUST GAS TEMPERATURE OF ENGINE SYSTEM	India	2014-11-25	5910/CHE/201 4	
POWER GENERATION SYSTEM AND METHOD WITH FAULT RIDE THROUGH CAPABILITY	India	2014-11-11	5669/CHE/201 4	
ONBOARD CATALYST HEALTH MONITORING AND CONTROL SYSTEM ADAPTATION IN INTERNAL COMBUSTION ENGINES	India	2014-11-11	5668/CHE/201 4	
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	India	2015-06-05	2815/CHE/201 5	
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	India	2015-06-05	2816/CHE/201 5	
SYSTEM FOR CONTROLLING DEPOSITS ON CYLINDER LINER AND PISTON OF RECIPROCATING ENGINE	India	2015-08-13	4220/CHE/201 S	:
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	India	2015-05-27	2656/CHE/201 5	
PISTON WITH REDUCED TOP LAND HEIGHT AND TIGHT TOP LAND PISTON PROFILE	India	2015-01-05	82/CHE/2015	

EVETENC AND METHODS	7. 1	2015 01 06	300/03111/0015	}	·;····
SYSTEMS AND METHODS	India	2015-01-06	98/CHE/2015		
FOR CONTROLLING					
EMISSIONS IN AN					
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
SYSTEMS AND METHODS	India	2015-12-08	6545/CHE/201		
FOR MODEL BASED			5		
CONTROL OF CATALYTIC		ži.			
CONVERTER SYSTEMS					
SPARK PLUG ELECTRODE	India	2015-09-26	5141/CHE/201		
GAP SETTING TOOL			\5		
POWER GENERATION	India	2015-12-11	6658/CHE/201		
SYSTEM AND METHOD		. 2000 2000 2000 20000	5		
WITH RESISTIVE BRAKING					
CAPABILITY					
SYSTEMS AND METHODS	India	2016-03-02	201644007271	***************************************	
FOR CONTROLLING					
AFTERTREATMENT					
SYSTEMS	100000				
SYSTEM AND METHOD	India	2015-12-23	6860/CHE/201		
FOR LOCATING ENGINE		800 00 0000 000	5		
NOISE	·				
KNOCK SENSOR SYSTEMS	India	2016-04-21	201644013824		
AND METHODS FOR	\$ 1000000000000000000000000000000000000	# 5555 S 55 555			
DETECTION OF	**				
COMPONENT CONDITIONS					
SENSOR FOR	India	2015-12-30	7072/CHE/201		
DETERMINING ENGINE			S		
CHARACTERISTICS					
METHOD AND SYSTEM TO	India	2016-02-17	201644005486	***********************************	
DETERMINE LOCATION OF					
PEAK FIRING PRESSURE					
SYSTEM AND METHOD	India	2016-01-06	201644000441		
FOR DETECTING	1		~		
RECIPROCATING DEVICE					
ABNORMALITIES					
UTILIZING STANDARD					
QUALITY CONTROL	***************************************				
TECHNIQUES					
(12/C1111/4/CCD)	4	i		<u> </u>	.i

SYSTEM AND METHOD	India	2016-02-04	201644003930	I	
FOR MODEL BASED AND	I I I I I I I I I I I I I I I I I I I	2010 02 01	201077003730		
MAP BASED THROTTLE					
POSITION DERIVATION					
AND MONITORING					
INDUCTION GENERATOR	India	2014-10-21	5251/CHE/201		
SYSTEM WITH A GRID-			4		
LOSS RIDE-THROUGH					
CAPABILITY					
SYSTEMS AND METHODS	i India	2016-03-09	201644008132		
TO DISTINGUISH ENGINE					
KNOCK FROM PISTON					
SLAP					
METHODS AND SYSTEMS	India	2016-02-04	201644003933		
TO DERIVE KNOCK					
SENSOR CONDITIONS					
SYSTEM AND METHOD	India	2016-01-25	201644002813		
FOR DETECTING	lineite	2010 01 22	201011002015		
OPERATING EVENTS OF AN					
ENGINE					
METHODS AND SYSTEMS	India	2015-12-23	6857/CHE/201		
TO CHARACTERIZE NOISES	likua	2013-12-23	5		
SENSED BY A KNOCK					
SENSOR	-				
PISTON ASSEMBLY FOR A	India	2016-01-06	201644000498		
RECIPROCATING ENGINE	innia	2010-01-00	201077000770		
SYSTEM AND METHOD	India	2015-12-18	6773/CHE/201		<u></u>
FOR IMPROVED JOURNAL	initia.	2015 12 10	S		
BEARING OPERATIONS	***************************************				
METHODS AND SYSTEMS	India	2016-02-12	201644004935		
TO DERIVE ENGINE	india	2010-02-12	201044004933		
COMPONENT HEALTH					
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	India	2016-03-15	201644008944		
FOR LOCATING AN ENGINE	mota	2010 03 15	201011000717		
EVENT					
COATING OF A JOURNAL	India	2015-12-22	6841/CHE/201		
BEARING SYSTEM AND AN	311414	2015 12 22	5		
ASSOCIATED METHOD					
THEREOF					
COATING OF A VALVE	India	2015-12-22	6842/CHE/201		
SYSTEM AND AN	********	2010-12-22	5		
ASSOCIATED METHOD					
THEREOF					
2.5.2.2.5.5.7.5.	<u> </u>		.t	i	L

JOINT-LESS CONTNUOUS	India	2016-12-16	201641042871		
JOURNAL BEARINGS					
AN ENGINE AND A METHOD OF OPERATING THE SAME	India	2017-02-10	201741004931		
SYSTEM AND METHOD FOR PISTON RING PROGNOSTIC	India	2017-08-18	201741029279		
SYSTEM AND METHOD FOR LOCATING ENGINE NOISE	Israel	2015-12-15	243143		
ORGANIC RANKINE CYCLE SYSTEMS USING WASTE HEAT FROM CHARGE AIR COOLING	Italy	2012-05-03	502016000063 032	2016-04-13	2522828
INTEGRATED REFORMER AND WASTE HEAT RECOVERY SYSTEM FOR POWER GENERATION	Italy	2013-10-10	MI2013A0016 75	2016-01-12	1420385
VARIABLE THICKNESS COATINGS FOR CYLINDER LINERS	Italy	2013-06-20	502017000126 501	2017-08-09	2677152
Mixing chamber with spiral channels	Italy	2012-06-07	502016000094 734	2016-08-10	2671630
EMISSIONS CONTROL IN STATIONARY RICH BURN ENGINES	Italy	2014-07-01	502018000007 795	2017-12-13	2821609
SYSTEMS AND METHODS FOR CONTROLLING EMISSIONS IN AN INTERNAL COMBUSTION ENGINE THROUGH THE CONTROL OF TEMPERATURE AT THE INLET OF AN AMMONIA SLIP CATALYST ASSEMBLY	Italy	2015-01-13	502017000129 163	2017-08-16	2894306
EXHAUST AFTERTREATMENT SYSTEM WITH AGING MONITORING OF AN AMMONIA SLIP CATALYST	Italy	2015-04-15	502017000096 691	2017-06-14	2933450
SPARK PLUG ELECTRODE GAP SETTING TOOL	Italy	2015-10-05	15188410.3	2018-07-04	3006163

METHOD AND SYSTEM FOR CONTROL OF EMISSIONS IN EXHAUST AFTERTREATMENT SYSTEM	Italy	2015-12-09	502017000128 532	2017-08-16	3032057
VARIABLE THICKNESS COATINGS FOR CYLINDER LINERS	Japan	2013-06-17	2013-126218	2017-10-27	6231781
SYSTEMS AND METHODS FOR SPARK TIMING RETARDATION	Japan				
GAS DOSAGE CONTROL FOR GAS ENGINE	Japan	2014-04-23	2014-088709		
EMISSIONS CONTROL IN DIESEL ENGINES	Japan	2014-11-17	2014-232291		
SYSTEM AND METHOD FOR CONTROL OF EXHAUST GAS RECIRCULATION EGR UTILIZING PROCESS TEMPERATURES	Japan	2014-10-06	2014-205428		
SYSTEM AND PROGRAM PRODUCT FOR CONTROLLING EXHAUST GAS TEMPERATURE OF ENGINE SYSTEM	Japan	2014-12-04	2014-245443		
GASEOUS REDUCTANT INJECTION CONTROL SYSTEM	Japan	2014-10-15	2014-210349		
POWER GENERATION SYSTEM AND METHOD WITH FAULT RIDE THROUGH CAPABILITY	Japan	2014-11-17	2014-232292		
ONBOARD CATALYST HEALTH MONITORING AND CONTROL SYSTEM ADAPTATION IN INTERNAL COMBUSTION ENGINES	Japan	2014-11-17	2014-232294		
Systems and Methods for Monitoring Catalyst Deactivation and Controlling an Air/Fuel Ratio	Japan	2014-09-17	2014-188374		
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	Japan	2015-06-01	2015-111016		

PISTON ASSEMBLY FOR A	Japan	2015-06-02	2015-111810		
RECIPROCATING ENGINE					
SYSTEM FOR	Japan	2015-08-14	2015-160008		
CONTROLLING DEPOSITS					
ON CYLINDER LINER AND					
PISTON OF					
RECIPROCATING ENGINE					
EMISSION CONTROL IN	Japan	2015-03-20	2015-057029	•••••••••••••••••••••••••••••••••••••••	
RICH BURN NATURAL GAS					
ENGINES					
PISTON ASSEMBLY FOR A	Japan	2015-06-02	2015-111811		
RECIPROCATING ENGINE	7.08	~~~~~~~			
BASE-FRAME ASSEMBLY	Japan	2016-05-06	2016-092921		
FOR A COMBUSTION	aupen	2010-03-00	2010-032321		
ENGINE					
PISTON WITH REDUCED	1	2015-01-08	2015-001930		
TOP LAND HEIGHT AND	Japan	2013-01-05	2010-001900		
TIGHT TOP LAND PISTON					
: \$1,000 per					
PROFILE		0015 01 00	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	***************************************	
SYSTEMS AND METHODS	Japan	2015-01-09	2015-002718		
FOR CONTROLLING					
EMISSIONS IN AN					
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY					
EXHAUST AFTER	Japan	2015-04-09	2015-079650		
TREATMENT SYSTEM					
WITH CATALYTIC					
DEACTIVATION					
MONITORING			1		
CONDITION BASED	Japan	2016-02-26	2016-035004		
ENGINE PARTS					
MONITORING	1			an a seed ,	
SYSTEM AND METHOD	Japan	2015-07-22	2015-144650		
FOR IMPROVING	*				
RESPONSE TIME OF A					
BRAKING UNIT					
SYSTEMS AND METHODS	Japan	2015-12-04	2015-237084		
FOR MODEL BASED		~~~~~~~			
CONTROL OF CATALYTIC					
CONVERTER SYSTEMS					
CONTRACTOR DESCRIPTION	<u> </u>		1		

EXHAUST	Japan	2015-04-08	2015-078846	
AFTERTREATEMENT				
SYSTEM WITH CATALYTIC				
DEACTIVATION				
MONITORING				
SPARK PLUG ELECTRODE	Japan	2015-10-02	2015-196349	
GAP SETTING TOOL				
POWER GENERATION	Japan	2015-12-03	2015-236194	
SYSTEM AND METHOD				
WITH RESISTIVE BRAKING				
CAPABILITY				
SYSTEMS AND METHODS	Japan	2016-02-25	2016-033703	
FOR CONTROLLING				
AFTERTREATMENT				
SYSTEMS				
SYSTEM AND METHOD	Japan	2015-12-24	2015-250816	
FOR LOCATING ENGINE				
NOISE				
KNOCK SENSOR SYSTEMS	Japan	2016-04-15	2016-081598	
AND METHODS FOR				
DETECTION OF				
COMPONENT CONDITIONS				
SENSOR FOR	Japan	2015-12-25	2015-252726	
DETERMINING ENGINE				
CHARACTERISTICS				
METHOD AND SYSTEM TO	Japan	2016-02-12	2016-024304	
DETERMINE LOCATION OF				
PEAK FIRING PRESSURE				
SYSTEM AND METHOD	Japan	2015-12-29	2015-257553	
FOR DETECTING				
RECIPROCATING DEVICE				
ABNORMALITIES				
UTILIZING STANDARD				
QUALITY CONTROL				
TECHNIQUES	1			
SYSTEM AND METHOD	Japan	2016-01-28	2016-013886	
FOR MODEL BASED AND				
MAP BASED THROTTLE				
POSITION DERIVATION				
AND MONITORING	<u> </u>			
INDUCTION GENERATOR	Japan	2015-10-15	2015-203318	
SYSTEM WITH A GRID-				
LOSS RIDE-THROUGH	3			
CAPABILITY	1		<u></u>	

SYSTEMS AND METHODS		2016-03-04	2016-041659	T	
TO DISTINGUISH ENGINE	Japan	2010-03-04	2010-041039		
KNOCK FROM PISTON					
SLAP					
METHODS AND SYSTEMS	Japan	2016-02-02	2016-017592		
TO DERIVE KNOCK					
SENSOR CONDITIONS					
SYSTEM AND METHOD	Japan	2016-01-22	2016-010206		
FOR DETECTING					
OPERATING EVENTS OF AN					
ENGINE					
METHODS AND SYSTEMS	Japan	2015-12-24	2015-250817		
TO CHARACTERIZE NOISES					
SENSED BY A KNOCK					
SENSOR					
KNOCK SENSOR NETWORK	Japan	2016-03-18	2017-551075		
SYSTEMS AND METHODS					
FOR CHARACTERIZING				X X X X	
NOISES	ļ				
PISTON ASSEMBLY FOR A	Japan	2016-01-06	2016-000775		
RECIPROCATING ENGINE					
SYSTEMS AND METHODS	Japan	2016-03-31	2016-069870		
FOR ESTIMATING A TIME					
OF AN ENGINE EVENT	ļ				
METHODS AND SYSTEMS	Japan	2016-02-04	2016-019410		
TO DERIVE ENGINE					
COMPONENT HEALTH USING TOTAL HARMONIC	***************************************				
DISTORTION IN A KNOCK	i				
SENSOR SIGNAL					
SYSTEM AND METHOD	Japan	2016-03-16	2016-051793		
FOR LOCATING AN ENGINE	authern	2010-03-10	2010-051773		
EVENT					
SYSTEM AND METHOD	Japan	2016-04-08	2016-077703		
FOR INJECTION CONTROL					
OF UREA IN SELECTIVE					
CATALYST REDUCTION					
DUAL FUEL SYSTEM FOR A	Japan	2016-06-23	2017-567618		
COMBUSTION ENGINE					
RECIPROCATING	Japan	2017-10-04	2017-193924		
COMPRESSOR FLOW		200000000 0000 1000	grave 600 000 000 8		
SENSING			100		
JOINT-LESS CONTNUOUS	Japan	2017-12-04	2017-232273		
JOURNAL BEARINGS					

VARIABLE THICKNESS	Korea,	2013-06-19	102013007033		
COATINGS FOR CYLINDER LINERS	Republic of (KR)	20000 100000000 10	0		
GAS DOSAGE CONTROL FOR GAS ENGINE	Korea, Republic of (KR)	2014-05-07	2014-0054162	2016-07-07	10-1639203
Rich Burn Internal Combustion Engine Catalyst Control	Korea, Republic of (KR)	2014-02-05	2014-0012897		
EMISSIONS CONTROL IN DIESEL ENGINES	Korea, Republic of (KR)	2014-11-17	10-2014- 0160067		
SYSTEM AND PROGRAM PRODUCT FOR CONTROLLING EXHAUST GAS TEMPERATURE OF ENGINE SYSTEM	Korea, Republic of (KR)	2014-12-10	102014017744 3		
GASEOUS REDUCTANT INJECTION CONTROL SYSTEM	Korea, Republic of (KR)	2014-10-16	102014013956 7		
POWER GENERATION SYSTEM AND METHOD WITH FAULT RIDE THROUGH CAPABILITY	Korea, Republic of (KR)	2014-11-07	102014015420 6		
ONBOARD CATALYST HEALTH MONITORING AND CONTROL SYSTEM ADAPTATION IN INTERNAL COMBUSTION ENGINES	Korea, Republic of (KR)	2014-11-18	102014016096 9		
Systems and Methods for Monitoring Catalyst Deactivation and Controlling an Air/Fuel Ratio	Korea, Republic of (KR)	2014-09-19	102014012480 1		
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	Korea, Republic of (KR)	2015-06-04	10-2015- 0079093		
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	Korea, Republic of (KR)	2015-06-03	10- 20150078435		
SYSTEM FOR CONTROLLING DEPOSITS ON CYLINDER LINER AND PISTON OF RECIPROCATING ENGINE	Korea, Republic of (KR)	2015-08-11	10-2015- 0112972		

EMISSION CONTROL IN RICH BURN NATURAL GAS	Korea, Republic of	2015-03-26	102015004234		
ENGINES	(KR)				
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	Korea, Republic of (KR)	2015-06-05	10-2015- 0079686		
BASE-FRAME ASSEMBLY FOR A COMBUSTION ENGINE	Korea, Republic of (KR)	2016-05-10	10-2016- 0056913		
PISTON WITH REDUCED TOP LAND HEIGHT AND TIGHT TOP LAND PISTON PROFILE	Korea, Republic of (KR)	2015-01-12	102015000401 6	**	
SYSTEMS AND METHODS FOR CONTROLLING EMISSIONS IN AN INTERNAL COMBUSTION ENGINE THROUGH THE CONTROL OF TEMPERATURE AT THE INLET OF AN AMMONIA SLIP CATALYST ASSEMBLY	Korea, Republic of (KR)	2015-01-09	102015000332 7		
EXHAUST AFTER TREATMENT SYSTEM WITH CATALYTIC DEACTIVATION MONITORING	Korea, Republic of (KR)	2015-04-14	10-2015- 0052329		
CONDITION BASED ENGINE PARTS MONITORING	Korea, Republic of (KR)	2016-03-03	102016002570 6		
SYSTEMS AND METHODS FOR MODEL BASED CONTROL OF CATALYTIC CONVERTER SYSTEMS	Korea, Republic of (KR)	2015-12-11	102015017711 1		
EXHAUST AFTERTREATEMENT SYSTEM WITH CATALYTIC DEACTIVATION MONITORING	Korea, Republic of (KR)	2015-04-15	10-2015- 0053242		
SPARK PLUG ELECTRODE GAP SETTING TOOL	Korea, Republic of (KR)	2015-10-05	102015013961 5		

POWER GENERATION SYSTEM AND METHOD WITH RESISTIVE BRAKING	Korea, Republic of (KR)	2015-12-10	102015017597 2	
CAPABILITY	(IXIC)			
SYSTEMS AND METHODS FOR CONTROLLING AFTERTREATMENT SYSTEMS	Korea, Republic of (KR)	2016-02-26	102016002365 2	
SYSTEM AND METHOD FOR LOCATING ENGINE NOISE	Korea, Republic of (KR)	2015-12-30	102015019001 8	
KNOCK SENSOR SYSTEMS AND METHODS FOR DETECTION OF COMPONENT CONDITIONS	Korea, Republic of (KR)	2016-04-15	102016004629 8	
SENSOR FOR DETERMINING ENGINE CHARACTERISTICS	Korea, Republic of (KR)	2016-01-04	102016000023 0	
METHOD AND SYSTEM TO DETERMINE LOCATION OF PEAK FIRING PRESSURE	Korea, Republic of (KR)	2016-02-15	102016001702 2	
SYSTEM AND METHOD FOR DETECTING RECIPROCATING DEVICE ABNORMALITIES UTILIZING STANDARD QUALITY CONTROL TECHNIQUES	Korea, Republic of (KR)	2016-01-05	2016-0000845	
SYSTEM AND METHOD FOR MODEL BASED AND MAP BASED THROTTLE POSITION DERIVATION AND MONITORING	Korea, Republic of (KR)	2016-02-04	102016001440 8	
INDUCTION GENERATOR SYSTEM WITH A GRID- LOSS RIDE-THROUGH CAPABILITY	Korea, Republic of (KR)	2015-10-15	102015014389 5	
SYSTEMS AND METHODS TO DISTINGUISH ENGINE KNOCK FROM PISTON SLAP	Korea, Republic of (KR)	2016-03-07	102016002699 4	
SYSTEM AND METHOD FOR DETECTING OPERATING EVENTS OF AN ENGINE	Korea, Republic of (KR)	2016-01-29	102016001158 1	

METHODS AND SYSTEMS TO CHARACTERIZE NOISES SENSED BY A KNOCK SENSOR	Korea, Republic of (KR)	2015-12-30	102015018974 5		
KNOCK SENSOR NETWORK SYSTEMS AND METHODS FOR CHARACTERIZING NOISES	Korea, Republic of (KR)	2016-03-18	102017703165 1		
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	Korea, Republic of (KR)	2016-01-05	10-2016- 0000871		
SYSTEMS AND METHODS FOR ESTIMATING A TIME OF AN ENGINE EVENT	Korea, Republic of (KR)	2016-03-30	102016003837 4		
METHODS AND SYSTEMS TO DERIVE ENGINE COMPONENT HEALTH USING TOTAL HARMONIC DISTORTION IN A KNOCK SENSOR SIGNAL	Korea, Republic of (KR)	2016-02-03	102016001334 9		
SYSTEM AND METHOD FOR LOCATING AN ENGINE EVENT	Korea, Republic of (KR)	2016-03-24	102016003540 1		
DUAL FUEL SYSTEM FOR A COMBUSTION ENGINE	Korea, Republic of (KR)	2016-06-23	102018700390 2		
RECIPROCATING COMPRESSOR FLOW SENSING	Korea, Republic of (KR)	2017-10-11	10- 2017- 0130176		
JOINT-LESS CONTNUOUS JOURNAL BEARINGS	Korea, Republic of (KR)	2017-12-14	102017017208 2		
ORGANIC RANKINE CYCLE SYSTEMS USING WASTE HEAT FROM CHARGE AIR COOLING	Netherlands	2012-05-03	12166544.2	2016-04-13	2522828
Mixing chamber with spiral channels	Norway	2012-06-07	12171197.2	2016-08-10	2671630
SYSTEM AND METHOD FOR OXIDANT TEMPERATURE CONTROL	Patent Cooperation Treaty	2016-06-08	PCT/US2016/0 36436		
METHOD AND SYSTEM FOR PORTABLE ENGINE HEALTH MONITORING	Patent Cooperation Treaty	2016-06-29	PCT/US16/039 927		

COATING OF A SYSTEM	Patent	2016-12-21	PCT/US2016/0]	
AND AN ASSOCIATED	Cooperation		68002		
METHOD THEREOF	Treaty				
SYSTEM AND METHOD	Patent	2016-08-31	PCT/US2016/0		
FOR LOCATING AN ENGINE	Cooperation		49694		
EVENT	Treaty				
RECIPROCATING ENGINE	Patent	2018-01-11	PCT/US2018/0		
SYSTEM WITH	Cooperation		13250		
ELECTRICALLY DRIVEN	Treaty				
COMPRESSOR AND	•				
METHOD FOR OPERATING					
SAME					
REGENERATIVE THERMAL	Patent	2017-06-23	PCT/CN2017/		
OXIDIZER SYSTEM AND	Cooperation		089712		
METHOD FOR OPERATING	Treaty				
REGENERATIVE THERMAL					
OXIDIZER SYSTEM	\$				
SYSTEM AND METHOD	Patent	2018-01-30	PCT/US18/015		
FOR INSTALLING SPARK	Cooperation		877		
PLUGS	Treaty				
DRILLING SYSTEM AND	Russian	2015-06-17	2015123290		
POWER SUPPLY METHOD	Federation				
Mixing chamber with spiral	Spain	2012-06-07	12171197.2	2016-08-10	2671630
channels					
VARIABLE THICKNESS	Switzerland	2013-06-20	13173010.3	2017-08-09	2677152
COATINGS FOR CYLINDER					
LINERS				<u> </u>	
SYSTEMS AND METHODS	Switzerland	2015-01-13	15150923.9	2017-08-16	2894306
FOR CONTROLLING					
EMISSIONS IN AN					
INTERNAL COMBUSTION					
ENGINE THROUGH THE					
CONTROL OF					
TEMPERATURE AT THE					
INLET OF AN AMMONIA					
SLIP CATALYST					
ASSEMBLY	G : 1 1	2016 12 00	15100666	2012 00 16	2022067
METHOD AND SYSTEM	Switzerland	2015-12-09	15198666.8	2017-08-16	3032057
FOR CONTROL OF					
EMISSIONS IN EXHAUST AFTERTREATMENT					
SYSTEM					
EMISSIONS CONTROL IN	United	2014-07-01	14175159.4	2017-12-13	2821609
STATIONARY RICH BURN	Kingdom	2017-0/-01	171/3137.7	2011-12-13	2021003
ENGINES	wingaom				
ENACTIVED	İ	<u>i</u>	1	L	

EXHAUST	United	2015-04-15	15163722.0	2017-06-14	2933450
AFTERTREATMENT SYSTEM WITH AGING MONITORING OF AN AMMONIA SLIP CATALYST	Kingdom				
SPARK PLUG ELECTRODE GAP SETTING TOOL	United Kingdom	2015-10-05	15188410.3	2018-07-04	3006163
SYSTEM AND METHOD FOR POWER GENERATION IN RANKINE CYCLE	United States of America	2006-12-13	11/609919	2009-09-29	7594399
ADAPTIVE MILLER CYCLE ENGINE	United States of America	2008-02-29	12/040225	2010-04-06	7690336
SYSTEM AND METHOD FOR RECOVERING WASTE HEAT	United States of America	2007-06-29	11/770895	2013-10-22	8561405
SYSTEM AND METHOD FOR CONTROLLING AN EXPANSION SYSTEM	United States of America	2007-12-14	11/956457	2012-05-29	8186161
TWO-PHASE EXPANSION SYSTEM AND METHOD FOR ENERGY RECOVERY	United States of America	2008-11-20	12/274608	2011-08-02	7987676
SYSTEM FOR CLOSED- LOOP CONTROL OF COMBUSTION IN ENGINES	United States of America	2008-11-14	12/270878	2011-08-09	7996142
TURBINE EXHAUST RECIRCULATION	United States of America	2009-08-27	12/548526	2013-07-09	8479489
SPIRAL RECUPERATIVE HEAT EXCHANGING SYSTEM	United States of America	2009-11-30	12/627059	2014-05-13	8721981
POWER GENERATION SYSTEM AND METHOD WITH VOLTAGE FAULT RIDE-THROUGH CAPABILITY	United States of America	2009-11-04	12/611988	2014-04-08	8692523
AUTO OPTIMIZING CONTROL SYSTEM FOR ORGANIC RANKINE CYCLE PLANTS	United States of America	2010-02-25	12/712954	2013-11-26	8590307
SYSTEM AND METHOD FOR COOLING AN EXPANDER	United States of America	2010-09-29	12/892973	2014-06-03	8739541
TURBINE INLET CONDITION CONTROLLED ORGANIC RANKINE CYCLE	United States of America	2010-06-18	12/818234	2014-08-26	8813498

INTEGRATED GENERATOR COOLING SYSTEM	United States of America	2011-04-29	13/097101	2014-11-04	8875515
ELECTROMAGNETIC BRAKING SYSTEMS AND METHODS	United States of America	2012-06-28	13/536245	2016-08-09	9413217B2
ORGANIC RANKINE CYCLE SYSTEMS USING WASTE HEAT FROM CHARGE AIR COOLING	United States of America	2011-05-13	13/106929	2012-11-06	8302399
INTEGRATION OF WASTE HEAT FROM CHARGE AIR COOLING INTO A CASCADED ORGANIC RANKINE CYCLE SYSTEM	United States of America	2011-04-20	13/090363	2014-02-18	8650879
SYSTEMS AND METHODS FOR COLD STARTUP OF RANKINE CYCLE DEVICES	United States of America	2012-01-06	13/344679	2016-02-02	9249691B2
INGEGRATED REFORMER AND WASTE HEAT RECOVERY SYSTEM FOR POWER GENERATION	United States of America	2012-10-24	13/658986	2017-07-18	9708973
VARIABLE THICKNESS COATINGS FOR CYLINDER LINERS	United States of America	2012-06-20	13/527699	2017-01-03	9534559
METHOD OF PRODUCING A SPARK GAP FOR AN ELECTRODE SUPPORT USING SACRIFICIAL MATERIAL	United States of America	2012-01-24	13/357307	2013-07-16	8485857
SYSTEMS AND METHODS FOR SPARK TIMING RETARDATION	United States of America	2017-11-27	15/823303		
***************************************	United States of America	2012-11-29	13/688518	2016-02-23	9266074B2
SYSTEM AND METHOD OF EXHAUST GAS RECIRCULATION	United States of America	2015-11-18	14/945322	2018-03-27	9926891
METHOD OF PRODUCING AN ELECTRODE SUPPORT USING BRAZING	United States of America	2012-01-24	13/357314	2014-12-16	8912713
SYSTEM FOR COOLING POWER GENERATION SYSTEM	United States of America	2013-03-04	13/783662	2014-12-30	8922033B2

GAS DOSAGE CONTROL FOR GAS ENGINE	United States of America	2013-05-10	13/891807	2017-02-28	9581089
Rich Burn Internal Combustion Engine Catalyst Control	United States of America	2013-02-06	13/760630	2014-11-18	8887490
LAMBDA VIRTUAL SENSOR SYSTEMS AND METHODS FOR A COMBUSTION ENGINE	United States of America	2015-08-11	14/823806	2017-08-01	9719445
Emissions Control in Stationary Rich Burn Engines	United States of America	2013-07-02	13/933766	2015-06-16	9057301
SYSTEM AND METHOD FOR CONTROL OF EXHAUST GAS RECIRCULATION EGR UTILIZING PROCESS TEMPERATURES	United States of America	2013-10-11	14/052243	2016-08-23	9422877B2
SYSTEM AND PROGRAM PRODUCT FOR CONTROLLING EXHAUST GAS TEMPERATURE OF ENGINE SYSTEM	United States of America	2013-12-11	14/102615	2017-12-26	9850841
GASEOUS REDUCTANT INJECTION CONTROL SYSTEM	United States of America	2013-10-24	14/062098	2016-01-26	9243534B2
ONBOARD CATALYST HEALTH MONITORING AND CONTROL SYSTEM ADAPTATION IN INTERNAL COMBUSTION ENGINES	United States of America	2013-11-19	14/083823	2016-09-06	9435246B2
Systems and Methods for Monitoring Catalyst Deactivation and Controlling an Air/Fuel Ratio	United States of America	2013-09-26	14/038014	2017-05-30	9664094
SYSTEMS AND METHODS FOR CONTROLLING ACCELERATION OF A POWER GENERATOR	United States of America	2014-11-13	14/540536	2017-03-21	9601918
POWER INTEGRATED SYSTEM AND METHOD FOR DRILLING RIG AND OIL/GAS PRODUCTION EQUIPMENT	United States of America	2015-02-05	14/614705	2018-07-10	10018044

PISTON ASSEMBLY FOR A	United	2014-06-06	14/298864	2016-10-18	9470179B2
RECIPROCATING ENGINE	States of America		8:		
CYLINDER HEAD ACCELERATION MEASUREMENT FOR VALVE TRAIN DIAGNOSTICS SYSTEM AND METHOD	United States of America	2015-06-22	14/745986	2018-04-03	9933334
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	United States of America	2014-06-06	14/298867	2015-12-01	9200589
SYSTEM FOR CONTROLLING DEPOSITS ON CYLINDER LINER AND PISTON OF RECIPROCATING ENGINE	United States of America	2014-08-21	14/465564	2016-06-07	9359971B2
SYSTEM AND METHOD FOR ENGINE CONTROL	United States of America	2015-08-06	15/749627		
EMISSION CONTROL IN RICH BURN NATURAL GAS ENGINES	United States of America	2014-03-27	14/226934	2015-10-06	9149768
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	United States of America	2014-06-06	14/298869	2016-05-10	9334830B2
BASE-FRAME ASSEMBLY FOR A COMBUSTION ENGINE	United States of America	2015-05-12	14/710257	2018-04-03	9932893
PISTON WITH REDUCED TOP LAND HEIGHT AND TIGHT TOP LAND PISTON PROFILE	United States of America	2014-01-14	14/154462	2018-04-03	9932930
SYSTEMS AND METHODS FOR CONTROLLING EMISSIONS IN AN INTERNAL COMBUSTION ENGINE THROUGH THE CONTROL OF TEMPERATURE AT THE INLET OF AN AMMONIA SLIP CATALYST ASSEMBLY	United States of America	2014-01-14	14/154418	2015-06-16	9056279

EXHAUST	United	2014-04-15	14/252849	2016-02-23	9267412B2
AFTERTREATMENT	States of				
SYSTEM WITH CATALYTIC DEACTIVATION	America				
MONITORING					
SYSTEMS AND METHODS	United	2015-04-07	14/680934	2017-05-23	9657678
FOR USING TRANSPORT	States of				
TIME TO ESTIMATE	America				
ENGINE					
AFTERTREATMENT	ninini.				
SYSTEM					
CHARACTERISTICS CVLDIDED LINED WEEK	T 7 (4 3	2011.01.02	14/04/201	2015 11 24	0104227
CYLINDER LINER WITH SLOTS	United States of	2014-04-07	14/246301	2015-11-24	9194327
SLOTS	America				
SYSTEMS AND METHODS	United	2015-10-26	14/923009		
FOR IN-CYLINDER	States of	~~~~	The second of th		
PRESSURE ESTIMATION	America	88			
USING PRESSURE WAVE					
MODELING					
CONDITION BASED	United	2015-03-05	14/639704		
ENGINE PARTS	States of				
MONITORING	America				
SYSTEM AND METHOD	United	2014-07-24	14/339552	2016-08-02	9407187B2
FOR IMPROVING RESPONSE TIME OF A	States of				
BRAKING UNIT	America				
SYSTEMS AND METHODS	United	2014-12-12	14/569213	2017-03-28	9605579
FOR MODEL BASED	States of	~ 0 *	1 " " " " " " " " " " " " " " " " " " "	~,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
CONTROL OF CATALYTIC	America				
CONVERTER SYSTEMS	11				
DRILLING SYSTEM AND	United	2015-06-18	14/743444	2018-07-10	10017993
POWER SUPPLY METHOD	States of	100 100001		\$2000000000 DOC. 000000	2007 10000000000 007
	America				
EXHAUST	United	2014-04-15	14/252890	2016-01-05	9228469B2
AFTERTREATEMENT	States of				
SYSTEM WITH CATALYTIC	America				
DEACTIVATION MONITORING					
SYSTEMS AND METHODS	United	2015-10-26	14/923032	2017-03-07	9587552
FOR DETECTING	States of	2013-10-20	17/723032	201/-03-0/	7301332
ANOMALIES AT IN-	America				
CYLINDER PRESSURE	,				
SENSORS					

SPARK PLUG ELECTRODE GAP SETTING TOOL	United States of	2014-10-08	14/509727	2016-08-30	9431797B2
POWER GENERATION	America United	2014-12-11	14/566749	2018-08-14	10050433
SYSTEM AND METHOD	States of	2014-12-11	14/300/49	2010-00-14	10030433
WITH RESISTIVE BRAKING	America				
CAPABILITY	America	***************************************			
SYSTEMS AND METHODS	United	2015-03-02	14/635816	2016-12-13	9517437B2
FOR CONTROLLING	States of				
AFTERTREATMENT	America				ii ii
SYSTEMS					
SYSTEM AND METHOD	United	2014-12-31	14/587434	2017-09-05	9752949
FOR LOCATING ENGINE	States of				process of the contract of the
NOISE	America				
HUMAN MACHINE	United	2014-11-12	14/539539	2017-08-01	9719454
INTERFACE (HMI) GUIDED	States of				
MECHANICAL FUEL	America				
SYSTEM ADJUSTMENT					
KNOCK SENSOR SYSTEMS	United	2015-04-24	14/695335		
AND METHODS FOR	States of				***
DETECTION OF	America				·
COMPONENT CONDITIONS		s	0.00000		
METHOD AND SYSTEM TO	United	2015-02-19	14/626585	2018-06-19	10001077
DETERMINE LOCATION OF	States of			į.	
PEAK FIRING PRESSURE	America	00000			
SYSTEM AND METHOD	United	2015-01-07	14/591192	2017-10-31	9803567
FOR DETECTING	States of				
RECIPROCATING DEVICE	America				
ABNORMALITIES					
JTILIZING STANDARD					
QUALITY CONTROL					
rechniques					
SYSTEM AND METHOD	United	2015-02-19	14/626511		200
FOR ENGINE EMISSION	States of				iin
CONTROL HARNESS	America				
SYSTEM AND METHOD	United	2015-02-04	14/614237	2016-12-27	9528445B2
FOR MODEL BASED AND	States of				
MAP BASED THROTTLE	America				* ************************************
POSITION DERIVATION					
AND MONITORING			<u> </u>		
METHODS AND SYSTEMS	United	2015-06-22	14/745868	2018-01-09	9863344
TO CONTROL EXHAUST	States of				3
GAS RECIRCULATION	America			l #	į

INDUCTION GENERATOR	United	2015-10-21	14/918950	2018-09-18	10079485
SYSTEM WITH A GRID-	States of		300000000000000000000000000000000000000		000000000000000000000000000000000000000
LOSS RIDE-THROUGH	America		iii iii ii i		
CAPABILITY					
SILENCER FOR MID-BED	United	2014-11-26	14/554706	2016-05-24	9347358B1
AIR INJECTION MIXING	States of				
	America				
SYSTEM AND METHOD OF	United	2014-12-10	14/565827	2017-06-20	9683467
COOLING VALVE WITH	States of				
MATERIAL IN CAVITY	America				
METHOD AND SYSTEM	United	2014-12-12	14/568580	2016-07-26	9399965B2
FOR CONTROL OF	States of				
EMISSIONS IN EXHAUST	America				
AFTERTREATMENT					***************************************
SYSTEM		0000 \$.0000 .0000 .0000 .0000			
SYSTEM AND METHOD	United	2015-07-02	14/790785		
FOR DETECTION OF	States of				
CHANGES TO	America				
COMPRESSION RATIO AND					
PEAK FIRING PRESSURE OF					
AN ENGINE					
SYSTEMS AND METHODS	United	2015-03-11	14/644526	2017-07-04	9695761
TO DISTINGUISH ENGINE	States of				
KNOCK FROM PISTON	America				
SLAP					
SYSTEM AND METHOD	United	2014-12-31	14/587407	2017-01-31	9556810
FOR REGULATING	States of				
EXHAUST GAS	America				
RECIRCULATION IN AN					
ENGINE					
ESTIMATION OF CYLINDER	United	2017-10-30	15/797555		
CONDITIONS USING A	States of				
KNOCK SENSOR	America				
SYSTEM AND METHOD	United	2015-05-06	14/705081	2017-10-10	9784231
FOR DETERMINING KNOCK	States of				
MARGIN FOR MULTI-	America				
CYLINDER ENGINES		1 (1995) 1 (1995)			non desirativitationessesses
METHODS AND SYSTEMS	United	2015-02-09	14/617458	2018-02-27	9903778
TO DERIVE KNOCK	States of				2000000000 BB
SENSOR CONDITIONS	America				
SYSTEM AND METHOD	United	2015-01-29	14/609416	2018-01-23	9874488
FOR DETECTING	States of				\$20000 DD 0000000
OPERATING EVENTS OF AN	America				
ENGINE	§	- 1 () () () () () () () () () (3	: \$:	· 6

KNOCK SENSOR NETWORK	United	2015-04-01	14/676733		
SYSTEMS AND METHODS	States of		\$ 1000000 1000 000000 100000 100000 1000000		
FOR CHARACTERIZING	America				
NOISES					
PISTON ASSEMBLY FOR A	United	2015-01-12	14/595013	2017-12-19	9845765
RECIPROCATING ENGINE	States of				
	America	į.			
SYSTEMS AND METHODS	United	2015-04-07	14/680863	2018-08-21	10054043
FOR ESTIMATING A TIME	States of				
OF AN ENGINE EVENT	America				
SYSTEM AND METHOD	United	2016-11-30	16/063386		
FOR IMPROVED JOURNAL	States of			Š	
BEARING OPERATIONS	America		1		
METHODS AND SYSTEMS	United	2015-02-12	14/621028		
TO DERIVE ENGINE	States of	elecensors consisting of the			***************************************
COMPONENT HEALTH	America				
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	United	2015-03-24	14/667275	2017-03-14	9593631
FOR LOCATING AN ENGINE	States of	~~.	1.,,00,,2,,2	~~., ~~.,	772701
EVENT	America				
SYSTEM AND METHOD	United	2015-05-11	14/709370	2017-10-31	9803698
HAVING COUPLING WITH	States of	2013 03 11	1.41,022,0	S.O	2302020
LAYERED PORTION	America				
SYSTEM AND METHOD	United	2015-04-14	14/686350	2016-09-06	9435244B1
FOR INJECTION CONTROL	States of	2012-1-7	13,000330	2(11 (1-0)3-00	3755277651
OF UREA IN SELECTIVE	America				
CATALYST REDUCTION	Amenca				
CYLINDER HEAD COVER	United	2015-09-08	14/847904		
WITH INTEGRAL SLEEVE	States of	2013-09-08	14/04/204		
WITH INTEGRAL SLEEVE	America				
SYSTEM AND METHOD	·	3015 00 02	14/920166	2010 02 20	0007001
\$ to detail and the control of t	United	2015-08-06	14/820156	2018-02-20	9897021
FOR DETERMINING	States of				
LOCATION AND VALUE OF	America				
PEAK FIRING PRESSURE	k r · · · ·	2016 07 02	11/7007714	2010 02 22	0000000
SYSTEM AND METHOD	United	2015-07-02	14/790714	2018-03-27	9926836
FOR OXIDANT	States of				
TEMPERATURE CONTROL	America	2012 10 22	1 7 7 7 7 7 7 7 7		
SYSTEM AND METHOD OF	United	2017-10-27	15/796124		
VALVE WEAR DETECTION	States of				
	America		ļ.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
REAL TIME DETECTION	United	2015-12-21	14/977226		
AND DIAGNOSIS OF	States of				
CHANGE IN PEAK FIRING	America				
PRESSURE	<u> </u>		<u> </u>		

FUEL SYSTEM FOR A	United	2015-08-28	14/839066	2018-04-10	9938933
COMBUSTION ENGINE	States of America				
LAMINAR FLOW OF	United	2015-10-20	14/918013	2018-03-27	9926829
PISTON COOLING JETS	States of		94 200000000000 TOON	4000 000000	***************************************
30, 100, 111, 100, 100, 100, 100, 100, 1	America				
SYSTEM AND METHOD	United	2015-10-13	14/882198	2017-11-07	9810105
FOR CAMSHAFT	States of				
VIBRATION CONTROL	America				
A SYSTEM AND METHOD	United	2015-08-07	14/821427	2017-01-03	9537301
FOR GENERATOR	States of				
BRAKING	America				
SYSTEM AND METHOD	United	2015-08-10	15/751167		
FOR GENERATOR	States of				
BRAKING USING	America				
LAMINATED BRAKE		-			
COMPONENTS					
DUAL FUEL SYSTEM FOR A	United	2015-07-10	14/796768	2017-08-29	9745903
COMBUSTION ENGINE	States of				
	America				
ENGINE CONTROLLER	United	2016-09-15	15/265865		
AND METHODS FOR	States of				
CONTROLLING EMISSION	America				
AND POWER GENERATION					
SYSTEM USING THE SAME					
METHOD AND ENGINE	United	2016-09-22	15/272474		
CONTROLLER FOR	States of				
DIAGNOSING WASTE GATE	America				
VALVE MALFUNCTION					
AND RELATED POWER					
GENERATION SYSTEM					1,00
AN ANNULAR RING	United	2015-09-28	14/867231		
GROOVE OF A PISTON	States of				
	America				
SYSTEMS AND METHODS	United	2015-06-29	14/754128	2017-10-10	9784635
FOR DETECTION OF	States of		A TO THE RESERVE		
ENGINE COMPONENT	America				
CONDITIONS VIA					
EXTERNAL SENSORS					100 ()
METHOD AND SYSTEM	United	2015-06-29	14/754206		
FOR PORTABLE ENGINE	States of				- Siemen
HEALTH MONITORING	America		**************************************	**************************************	
METHODS TO ADAPT AIR-	United	2015-11-16	14/942201	2018-02-13	9890723
FUEL (A/F) CONTROLS FOR	States of		de lesses de Bessilles	and see the Table 1 the 11	
CATALYST AGING	America				

METHODS TO ADAPT	United	2015-11-16	14/942644	2018-06-19	10001046
REDUCTANT INJECTION	States of	9			
CONTROLS FOR CATALYST	America				
AGING					
SYSTEM AND METHOD	United	2015-08-19	14/830379	2018-01-16	9869257
FOR PREDICTING PEAK	States of				
PRESSURE VALUES USING	America				
KNOCK SENSOR	1				
SYSTEM AND METHOD	United	2017-07-12	15/648257		
FOR VALVE EVENT	States of				
DETECTION AND	America				
CONTROL					
COVER SYSTEM WITH	United	2015-08-05	14/818599	2017-05-30	9664284
GASKET SYSTEM	States of			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
THEREFOR	America				
COATING OF A SYSTEM	United	2016-12-21	15/777673		
AND AN ASSOCIATED	States of				
METHOD THEREOF	America				
SYSTEM FOR MONITORING	United	2015-12-31	14/985899	2018-09-18	10077730
A PRECHAMBER OF AN	States of				
ENGINE	America				
SYSTEM FOR COOLING	United	2016-03-31	16/081467		
ENGINE INTAKE FLOW	States of				
	America				
SYSTEMS AND METHODS	United	2017-09-27	15/717914		
ADJUSTING FOR	States of				
AFTERTREATMENT	America				
SYSTEM CONDITION					
SYSTEMS AND METHODS	United	2017-09-27	15/717911		
ADJUSTING FOR	States of				
AFTERTREATMENT	America				
SYSTEM CONDITION AND					
CONTROL					
SYSTEM AND METHOD	United	2017-08-08	15/672286		
FOR DETECTING	States of				
OPERATING EVENTS OF AN	America				
ENGINE VIA MIDI					
RECIPROCATING	United	2016-10-11	15/290746		····
COMPRESSOR FLOW	States of				
SENSING	America				
KNOCK SENSOR SYSTEMS	United	2018-01-22	15/877363		
AND METHODS FOR	States of				
VALVE RECESSION	America			X	
CONDITIONS	***************************************				

METHODS AND SYSTEMS FOR DIAGNOSING VALVE DEFECTS IN RECIPROCATING COMPRESSORS	United States of America	2018-06-25	16/017425	
TWO-STAGE RECIPROCATING COMPRESSOR OPTIMIZATION CONTROL SYSTEM	United States of America	2017-01-17	15/397289	
THERMALLY COMPENSATED BORE GUIDE SYSTEMS AND METHODS	United States of America	2018-03-06	15/913585	
SYSTEM FOR COOLING EXHAUST VALVE OF A RECIPROCATING ENGINE	United States of America	2017-11-02	15/802375	
SYSTEM AND METHOD FOR COMPRESSOR SCHEDULING	United States of America	2017-09-18	15/707227	
SYSTEM AND METHOD FOR PISTON RING PROGNOSTIC	United States of America	2018-07-16	16/036019	
EXHAUST AFTERTREATMENT SYSTEM	United States of America	2018-04-12	15/951272	
PISTON ASSEMBLY WITH OFFSET TIGHT LAND PROFILE	United States of America	2017-12-06	15/833465	
METHOD AND SYSTEM FOR GAS COMPRESSOR CONTROL	United States of America	2018-03-01	15/909673	

EXHIBIT B

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EXHIBIT C



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