506046387 05/06/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6093101

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GENERAL ELECTRIC COMPANY	11/02/2018

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 8

Property Type	Number
PCT Number:	US2016036436
PCT Number:	US2016039927
PCT Number:	US2016068002
PCT Number:	US2016049694
PCT Number:	US2018013250
PCT Number:	CN2017089712
PCT Number:	US2018015877
PCT Number:	US2018066623

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

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

Address Line 1: P.O. BOX 692289

Address Line 4: **HOUSTON, TEXAS 77269-2289**

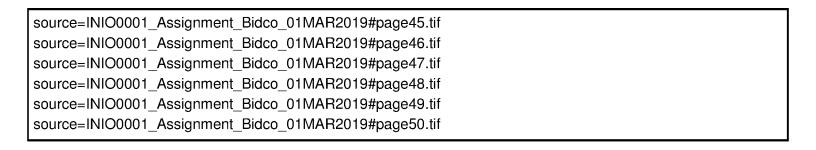
ATTORNEY DOCKET NUMBER:	INIO:0001PCT
NAME OF SUBMITTER:	TAIT R. SWANSON

PATENT REEL: 052581 FRAME: 0190

506046387

SIGNATURE:	/Tait R. Swanson, Reg. No. 48,226/
DATE SIGNED:	05/06/2020
Total Attachments: 50	
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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 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");

; 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]

44839.2722.447

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	Austria	2016-04-13	16165045.2	2018-10-03	3081776
FOR INJECTION CONTROL OF UREA IN SELECTIVE CATALYST REDUCTION	ennen de la companya				
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	Brazil	2015-01-12	10 2015
FOR CONTROLLING	Diazii	2015-01-12	000662-4
EMISSIONS IN AN			000002
INTERNAL COMBUSTION			
ENGINE THROUGH THE			
CONTROL OF			
TEMPERATURE AT THE			
INLET OF AN AMMONIA			
SLIP CATALYST		***************************************	
ASSEMBLY			
SYSTEMS AND METHODS	Brazil	2015-12-10	102015030853
FOR MODEL BASED	Jonaen .	2,10,12,10	
CONTROL OF CATALYTIC			
CONVERTER SYSTEMS	- municipal de la company de l		
POWER GENERATION	Brazil	2015-12-10	102015030863
SYSTEM AND METHOD	ESTURNI	2010 12 10	19
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	1992 - 40 10 10	000000000 40 000 0000	-2
NOISE			
KNOCK SENSOR SYSTEMS	Brazil	2016-04-06	102016007574
AND METHODS FOR		100000000000000000000000000000000000000	-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	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			-4	
SYSTEMS AND METHODS	Brazil	2016-04-06	102016007569	
FOR ESTIMATING A TIME			-6	
OF AN ENGINE EVENT		L		
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 n:1	2016 02 10	102016005985	<u> </u>
FOR LOCATING AN ENGINE	Brazil	2016-03-18	3	
EVENT			-2	
January Commence of the Commen	i Panda	2012-08-02	2784423	
MANIFOLD GASKET ASSEMBLY	Canada	2012-00-02	2/84423	
Rich Burn Internal Combustion	Canada	2014-01-30	2841288	
Engine Catalyst Control	Canaua	2014-01-30	2041200	
LAMBDA VIRTUAL	Canada	2016-07-05	2994531	
SENSOR SYSTEMS AND	Canada	2010-01-03	2774JJ1	
METHODS FOR A		يند		
COMBUSTION ENGINE				
COMMISSION TO THE STATE OF THE	£:	<u> </u>	<u> </u>	1

CONTRACTOR AND A STREET AND					ş
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		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>
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				<u> </u>	
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	N.				
INLET OF AN AMMONIA	***************************************				
SLIP CATALYST	N. Company				
	\$ \$ \$ \$				
ASSEMBLY	. E	}	<u>}</u>		

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	30.700				
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~,·	2015 12 10	2015200		
METHODS AND SYSTEMS	Canada	2015-12-18	2915789		
TO CHARACTERIZE NOISES				1	
SENSED BY A KNOCK				1	i i
SENSOR	ļ		L		
KNOCK SENSOR NETWORK	Canada	2016-03-18	2981258		
SYSTEMS AND METHODS					
FOR CHARACTERIZING					
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	Canada	2910-01-20	2717271		
COMPONENT HEALTH					
USING TOTAL HARMONIC					
DISTORTION IN A KNOCK					
SENSOR SIGNAL					
SYSTEM AND METHOD	Canada	2016-03-10	2923277	†	+
FOR LOCATING AN ENGINE	Canada	2010 05 10	2723211		
EVENT					
SYSTEM AND METHOD	Canada	2016-03-30	2925371	+	_
FOR INJECTION CONTROL	Common	2010 05 55	2,32,337,1		
OF UREA IN SELECTIVE					
CATALYST REDUCTION					
SYSTEM AND METHOD	Canada	2016-06-08	2989594	·	1
FOR OXIDANT	Canada	2010 00 00	270,757		
TEMPERATURE CONTROL		, in the second second			
DUAL FUEL SYSTEM FOR A	Canada	2016-06-23	2991405		
COMBUSTION ENGINE					
RECIPROCATING	Canada	2017-10-05	2981535	<u> </u>	
COMPRESSOR FLOW			7		
SENSING		i i			
JOINT-LESS CONTNUOUS	Canada	2017-11-30	2987167	<u> </u>	<u> </u>
JOURNAL BEARINGS					
TURBINE EXHAUST	China	2010-08-27	201010272882	2014-11-19	20101027288
RECIRCULATION SYSTEM	\$ 000000000000000000000000000000000000		.9		2.9
AND METHOD	:				
ELECTROMAGNETIC	China	2013-06-28	201310263947	2017-06-13	103516272
BRAKING SYSTEMS AND			1.7		
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					
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		
Rich Burn Internal Combustion	China	2014-02-07	201410044952		
Engine Catalyst Control		20 2000	3		

EMISSIONS CONTROL IN	China	2014-11-21	201410674311		
DIESEL ENGINES	.]		.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			.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	İ	
FOR POWER GENERATION			5		1
ONBOARD CATALYST	China	2014-11-19	201410663180		
HEALTH MONITORING					
AND CONTROL SYSTEM					
ADAPTATION IN		***************************************			
INTERNAL COMBUSTION					
ENGINES	-	Single Control of the			
Systems and Methods for	China	2014-09-26	201410501113		
Monitoring Catalyst	~ refree	Can Lat Market	.X		
Deactivation and Controlling an				1	
Air/Fuel Ratio		· ·		() 1 () () () () () () () () (in the second se
POWER INTEGRATED	China	2014-02-18	201410054131		
SYSTEM AND METHOD	Cimia	01-20-10	3		
FOR DRILLING RIG AND			.8		
\$					
OIL/GAS PRODUCTION EQUIPMENT					
PISTON ASSEMBLY FOR A	China	2015 06 00	201510307846		
RECIPROCATING ENGINE	China	2015-06-08			
Pro	China	2015 06 00	201510207887		
PISTON ASSEMBLY FOR A	China	2015-06-08	201510307887		
RECIPROCATING ENGINE		2016.00.03	3	li .	1
SYSTEM FOR	China	2015-08-21	201510516803		
CONTROLLING DEPOSITS		•	1-1		
ON CYLINDER LINER AND		بزدندد			
PISTON OF					
RECIPROCATING ENGINE	<u> </u>		<u> </u>	<u> </u>	

PISTON ASSEMBLY FOR A	China	2015-06-05	201510301908		1
RECIPROCATING ENGINE	Cinna	2013-00-03	0		
BASE-FRAME ASSEMBLY	China	2016-05-12	201610311144		
FOR A COMBUSTION	CHILL	2010-03-12	8		
ENGINE			ľ		
PISTON WITH REDUCED	China	2015-01-14	201510017775		·····
TOP LAND HEIGHT AND	CANAL CONTRACTOR OF THE PARTY O	*** Y	4		
TIGHT TOP LAND PISTON	***				
PROFILE					
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				. 50.001	
CONDITION BASED	China	2016-03-04	201610123829		
ENGINE PARTS		android (Tundo Millingen Higger) (T	.X		
MONITORING			000000000000000000000000000000000000000		
SYSTEM AND METHOD	China	2015-07-24	201510440604		
FOR IMPROVING			.2		
RESPONSE TIME OF A					
BRAKING UNIT					
SYSTEMS AND METHODS	China	2015-12-11	201511036234		
FOR MODEL BASED			.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	<u> </u>				
SYSTEMS AND METHODS	China	2016-03-02	201610116846		
FOR CONTROLLING		***************************************	.0		
AFTERTREATMENT		in			
SYSTEMS	1				
SYSTEM AND METHOD	China	2015-12-31	201511036326		
FOR LOCATING ENGINE	***************************************		0.		
NOISE	1		1		<u>[]</u>

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KNOCK SENSOR SYSTEMS	China	2010-04-22	201610253130	
AND METHODS FOR		***************************************	.5	
DETECTION OF				مددند
COMPONENT CONDITIONS			1	
SENSOR FOR	China	2016-01-08	201610011336	uiii
DETERMINING ENGINE			7	iii.
CHARACTERISTICS		<u> </u>		
METHOD AND SYSTEM TO	China	2016-02-19	201610092672	
DETERMINE LOCATION OF			.9	unio de la companya della companya della companya della companya de la companya della companya d
PEAK FIRING PRESSURE				
SYSTEM AND METHOD	China	2016-01-07	201610223627	
FOR DETECTING			12	
RECIPROCATING DEVICE				
ABNORMALITIES				
UTILIZING STANDARD				
OUALITY CONTROL				
TECHNIQUES				
SYSTEM AND METHOD	China	2016-02-04	201610078918	
FOR MODEL BASED AND	Cinna	2010-02-04	1	
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	\$	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	Camia	2010-02-05	8	
SENSOR CONDITIONS			3.0	
SYSTEM AND METHOD	l Krati	2016 01 20	201610264664	
	China	2016-01-29	1 Control Control Control (1)	
FOR DETECTING			.8	
OPERATING EVENTS OF AN				
ENGINE	<u> </u>			
METHODS AND SYSTEMS	China	2015-12-31	201511014250	
TO CHARACTERIZE NOISES	i iii		1	
SENSED BY A KNOCK	with the second			
SENSOR		<u> </u>		

KNOCK SENSOR NETWORK	China	2016-03-18	201680032117	}	
SYSTEMS AND METHODS	Cimia	2010-03-10	5		
FOR CHARACTERIZING			17		
NOISES					
}	la.	2016 01 12	201610017166		
PISTON ASSEMBLY FOR A	China	2016-01-12	201610017155		
RECIPROCATING ENGINE		200000000000000000000000000000000000000	15		
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	2013-00-10	3		
BRAKING USING			.3		
LAMINATED BRAKE					
COMPONENTS	CII.		1001700070000		
DUAL FUEL SYSTEM FOR A	China	2016-06-23	201680040832		
COMBUSTION ENGINE	<u></u>		1.3		
SYSTEMS AND METHODS	China	2016-06-24	201680038696	8	
FOR DETECTION OF			.4		
ENGINE COMPONENT					
CONDITIONS VIA		1			
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			1		
maximum cooling of the guide					
maximani coomig of the guide	L		.t	<u> </u>	1

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	39	
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				
DETECTION OF					
COMPONENT CONDITIONS					
SENSOR FOR	European	2016-01-05	16150239.8		
DETERMINING ENGINE	Patent				
CHARACTERISTICS			<u> </u>		
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	<u> </u>				
INDUCTION GENERATOR	European	2015-10-16	15190243.4		
SYSTEM WITH A GRID-	Patent				
LOSS RIDE-THROUGH					
CAPABILITY	ļ				
SYSTEM AND METHOD OF	European	2015-11-27	15196878.1		
COOLING VALVE WITH	Patent				
MATERIAL IN CAVITY	<u> </u>				****
SYSTEM AND METHOD	European	2016-06-28	16739315.6		
FOR DETECTION OF	Patent				
CHANGES TO					
COMPRESSION RATIO AND					
PEAK FIRING PRESSURE OF					
AN ENGINE	<u></u>				
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					
RECIRCULATION IN AN					
ENGINE	1				

METHOD AND SYSTEM OF DIAGNOSING A KNOCK SENSOR	European Patent	2016-02-05	16154442.4	2018-04-18	3054134
KNOCK SENSOR NETWORK SYSTEMS AND METHODS FOR CHARACTERIZING NOISES	European Patent	2016-03-18	16712169.8		
PISTON ASSEMBLY FOR A RECIPROCATING ENGINE	European Patent	2016-01-05	16150208.3		
SYSTEMS AND METHODS FOR ESTIMATING A TIME OF AN ENGINE EVENT	European Patent	2016-04-04	16163698.0		
SYSTEM AND METHOD FOR IMPROVED JOURNAL BEARING OPERATIONS	European Patent	2016-11-30	16816510.8		
METHODS AND SYSTEMS TO DERIVE ENGINE COMPONENT HEALTH USING TOTAL HARMONIC DISTORTION IN A KNOCK SENSOR SIGNAL	European Patent	2016-02-05	16154444.0		
SYSTEM AND METHOD FOR LOCATING AN ENGINE EVENT	European Patent	2016-03-22	16161757.6		
SYSTEM AND METHOD FOR INJECTION CONTROL OF UREA IN SELECTIVE CATALYST REDUCTION	European Patent	2016-04-13	16165045.2	2018-10-03	3081776
SYSTEM AND METHOD FOR OXIDANT TEMPERATURE CONTROL	European Patent	2016-06-08	16734080.1		
LAMINAR FLOW OF PISTON COOLING JETS	European Patent	2016-10-18	16791481.1		
SYSTEM AND METHOD FOR CAMSHAFT VIBRATION CONTROL	European Patent	2016-09-29	16781935.8		
SYSTEM AND METHOD FOR GENERATOR BRAKING USING LAMINATED BRAKE COMPONENTS	European Patent	2015-08-10	15753817.4		
DUAL FUEL SYSTEM FOR A COMBUSTION ENGINE	European Patent	2016-06-23	16735969.4		
AN ANNULAR RING GROOVE OF A PISTON	European Patent	2016-09-16	16778524.5		

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 2 3 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	· in the second	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	India	2013-06-05	[1686/DEL/201	
BRAKING SYSTEMS AND METHODS			3	:
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 FIGHT TOP LAND PISTON PROFILE	India	2015-01-05	82/CHE/2015	

EVETENE 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					
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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	T	
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	1				
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			<u> </u>		
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	7	2015 10 20	2015 2005		
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	hahan	2010-01-20	2010-013000		
MAP BASED THROTTLE					
POSITION DERIVATION					
AND MONITORING					
INDUCTION GENERATOR	Japan	2015-10-15	2015-203318		····
SYSTEM WITH A GRID-	1. 30 Pr. A45 V				
LOSS RIDE-THROUGH					
CAPABILITY					
Corne i Rederat e la	.1		1	*************************	

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 COATINGS FOR CYLINDER LINERS	Korea, Republic of (KR)	2013-06-19	102013007033 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	Korea, Republic of	2015-12-10	102015017597	
WITH RESISTIVE BRAKING CAPABILITY	(KR)		*	
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 I	

METHODS AND SYSTEMS	Korea,	2015-12-30	102015018974		
TO CHARACTERIZE NOISES SENSED BY A KNOCK SENSOR	Republic of (KR)		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		
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	The state of the s	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			N. Control of the con		
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		ļ	<u> </u>		
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				2012 00 12	2004200
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	DWITZELIGHO	2013-12-07	13170000,8	£01/~00~10	3032037
EMISSIONS IN EXHAUST	Ť.		3		
AFTERTREATMENT					
SYSTEM					
EMISSIONS CONTROL IN	United	2014-07-01	14175159.4	2017-12-13	2821609
STATIONARY RICH BURN	Kingdom	2017-07-01	171/3137.7	GU11-14-13	2021007
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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				
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 SYSTEM WITH CATALYTIC DEACTIVATION MONITORING	States of America				
SYSTEMS AND METHODS FOR USING TRANSPORT TIME TO ESTIMATE ENGINE AFTERTREATMENT SYSTEM CHARACTERISTICS	United States of America	2015-04-07	14/680934	2017-05-23	9657678
CYLINDER LINER WITH SLOTS	United States of America	2014-04-07	14/246301	2015-11-24	9194327
SYSTEMS AND METHODS FOR IN-CYLINDER PRESSURE ESTIMATION USING PRESSURE WAVE MODELING	United States of America	2015-10-26	14/923009	*	
CONDITION BASED ENGINE PARTS MONITORING	United States of America	2015-03-05	14/639704		
SYSTEM AND METHOD FOR IMPROVING RESPONSE TIME OF A BRAKING UNIT	United States of America	2014-07-24	14/339552	2016-08-02	9407187B2
SYSTEMS AND METHODS FOR MODEL BASED CONTROL OF CATALYTIC CONVERTER SYSTEMS	United States of America	2014-12-12	14/569213	2017-03-28	9605579
DRILLING SYSTEM AND POWER SUPPLY METHOD	United States of America	2015-06-18	14/743444	2018-07-10	10017993
EXHAUST AFTERTREATEMENT SYSTEM WITH CATALYTIC DEACTIVATION MONITORING	United States of America	2014-04-15	14/252890	2016-01-05	9228469B2
SYSTEMS AND METHODS FOR DETECTING ANOMALIES AT IN- CYLINDER PRESSURE SENSORS	United States of America	2015-10-26	14/923032	2017-03-07	9587552

SPARK PLUG ELECTRODE	United	2014-10-08	14/509727	2016-08-30	9431797B2
GAP SETTING TOOL	States of	2014-10-00	14/303727	2010-00-30	3431737112
dati burrino rocu	America				
POWER GENERATION	United	2014-12-11	14/566749	2018-08-14	10050433
SYSTEM AND METHOD	States of				
WITH RESISTIVE BRAKING	America				
CAPABILITY					
SYSTEMS AND METHODS	United	2015-03-02	14/635816	2016-12-13	9517437B2
FOR CONTROLLING	States of				
AFTERTREATMENT	America				
SYSTEMS					
SYSTEM AND METHOD	United	2014-12-31	14/587434	2017-09-05	9752949
FOR LOCATING ENGINE	States of				
NOISE	America				
HUMAN MACHINE	United	2014-11-12	14/539539	2017-08-01	9719454
NTERFACE (HMI) GUIDED	States of				
MECHANICAL FUEL	America				
SYSTEM ADJUSTMENT					
CNOCK 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					
JTILIZING STANDARD					
QUALITY CONTROL					
rechniques	4				
SYSTEM AND METHOD	United	2015-02-19	14/626511		***************************************
FOR ENGINE EMISSION	States of				in and the second
CONTROL HARNESS	America	2012 00 01		2012 12 22	
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	 				002004
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		**************************************		300000000000000000000000000000000000000
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)			
METHODS AND SYSTEMS	United	2015-02-09	14/617458	2018-02-27	9903778
TO DERIVE KNOCK	States of				posteriore se
SENSOR CONDITIONS	America				
SYSTEM AND METHOD	United	2015-01-29	14/609416	2018-01-23	9874488
FOR DETECTING	States of				\$10000 DD 10000000
OPERATING EVENTS OF AN	America				
ENGINE	§	33.0	3	4	: {

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			,	
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	13/920166	2010 02 20	0007001
	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>		1		

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	***************************************
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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 Best Tec	and see the Table 1 the 11	
CATALYST AGING	America				

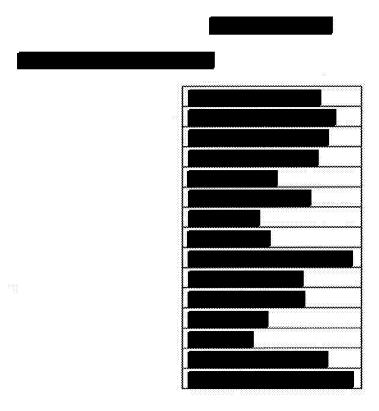
METHODS TO ADAPT	United	2015-11-16	14/942644	2018-06-19	10001046
REDUCTANT INJECTION	States of		**************************************		
CONTROLS FOR CATALYST	America				
AGING					
SYSTEM AND METHOD	United	2015-08-19	14/830379	2018-01-16	9869257
FOR PREDICTING PEAK	States of				
PRESSURE VALUES USING	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				
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	<u> </u>				

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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