

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT7352989

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
GENERAL ELECTRIC COMPANY	11/01/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	GE GLOBAL SOURCING LLC
<b>Street Address:</b>	901 MAIN AVENUE
<b>City:</b>	NORWALK
<b>State/Country:</b>	CONNECTICUT
<b>Postal Code:</b>	06851
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16733723
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(314)584-4062
<i>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.</i>	
<b>Phone:</b>	3145844080
<b>Email:</b>	docket@splglaw.com
<b>Correspondent Name:</b>	THE SMALL PATENT LAW GROUP, LLC
<b>Address Line 1:</b>	1423 STRASSNER DR, SUITE 100
<b>Address Line 4:</b>	BRENTWOOD, MISSOURI 63144
<b>ATTORNEY DOCKET NUMBER:</b>	WABP11411USCON8 322US2
<b>NAME OF SUBMITTER:</b>	CHRISTOPHER R. CARROLL
<b>SIGNATURE:</b>	/Christopher R. Carroll/
<b>DATE SIGNED:</b>	05/26/2022
<b>Total Attachments: 13</b>	
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## INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT

This **INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT** ("Assignment"), effective as of November 1, 2018 ("Effective Date"), is by and between General Electric Company ("Assignor") and GE Global Sourcing LLC ("Assignee").

WHEREAS, pursuant to that certain Separation, Distribution and Sale Agreement, dated as of May 20, 2018 among Assignor, Transportation Systems Holdings Inc. ("SpinCo"), Westinghouse Air Brake Technologies Corporation, and Wabtec US Rail, Inc. (the "Separation Agreement"), Assignor agreed to Transfer, or cause certain of its affiliates to Transfer, and SpinCo agreed to receive, the SpinCo Assets, in each case on the terms and subject to the conditions contained in the Separation Agreement;

WHEREAS, the SpinCo Assets include all Registrable IP set forth on Exhibit A hereto (the "Assigned IP");

WHEREAS, Assignor hereby desires to deliver and transfer to Assignee the Assigned IP;

WHEREAS, with respect to any Registrable IP developed or identified after the Effective Date that constitutes SpinCo Assets and that is required to be transferred to SpinCo pursuant to the Separation Agreement ("Future Assigned IP"), Assignor will deliver and transfer to Assignee the Future Assigned IP pursuant to a separate intellectual property assignment agreement in substantially the same form as this Assignment which will be entered into on the Closing Date;

WHEREAS, in exchange for the transfer of the Assigned IP and Future Assigned IP, Assignee will deliver, and Assignor will receive, a cash payment of \$567,000,000 and the Promissory Note for \$567,000,000 between Assignor and Assignee dated November 1, 2018 (collectively, the "Consideration");

WHEREAS, Assignee desires to acquire the Assigned IP and Future Assigned IP from Assignor and Assignor desires to receive the Consideration; and

WHEREAS, in accordance with its obligations under the Separation Agreement, Assignor intends to Transfer, directly or indirectly, all of the outstanding equity interests of Assignee to SpinCo.

NOW, THEREFORE, for good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged:

1. Unless otherwise defined herein, all capitalized terms used herein shall have the meanings ascribed to such terms in the Separation Agreement.
2. In exchange for the Consideration, Assignor hereby sells, assigns and transfers to Assignee its entire worldwide right, title and interest in, to and under the Assigned IP, together with any and all goodwill connected with and symbolized by the Assigned IP, the same to be held and enjoyed by Assignee for its own use and enjoyment and the use and enjoyment of its successors, assigns and other legal representatives as fully and entirely as the same would have been held and enjoyed by

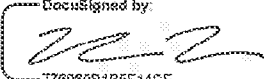
Assignor if this assignment and sale had not been made, as assignee of its respective entire right, title and interest therein, including, without limitation, all rights in and to all income, royalties, damages and payments now or hereafter due or payable with respect thereto, all causes of action (whether in law or in equity) with respect thereto, and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Assignment.

3. 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 the choice of law principles thereof.
4. 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 set forth herein, and to vest in Assignee such right, title, and interest in and to the Assigned IP as sold, assigned and transferred to Assignee hereunder.
5. Assignor hereby authorizes and requests the officials of the United States Copyright Office and 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.
6. 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.
7. 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:**

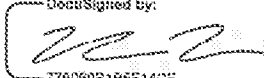
General Electric Company

DocuSigned by:  
  
By: \_\_\_\_\_  
776060B185F14CE

Name: Victoria Vron  
Title: Authorized Signatory

**As Assignee:**

GE Global Sourcing LLC

DocuSigned by:  
  
By: \_\_\_\_\_  
776060B185F14CE

Name: Victoria Vron  
Title: Vice President

**EXHIBIT A**  
**ASSIGNED IP**

1. Patents

See attachment titled Assigned IP Patents which is hereby incorporated herein by reference.

2. Trademarks

- See attachment titled Assigned IP Trademarks which is hereby incorporated herein by reference.

Trademark	Registration No.	Status
FAIRCHILD INTERNATIONAL	1176840	Active
FAIRCHILD INTERNATIONAL	1518652	Cancelled
HAUL-MARK	1248161	Cancelled
LO-LOW	1300187	Cancelled
VORAX	1319219	Cancelled
VORTEX	1016540	Cancelled
WILCOX	0731455	Cancelled

3. Copyrights

Docket Number	Title	Filing Description	Application Number	Application Date	Copyright Date	Copyright Number	Filing Status
283161	DOCS Common App CMS Priv bin Raildocs	CPY-Copyright	1-1832700148	17-OCT-14	NA	TX0007976223	Issued
283163	DOCS-common app hos raildocs	CPY-Copyright	1-1827193121	17-OCT-14	17-OCT-14	TX0007975727	Issued
283164	DOCS Raildocs	CPY-Copyright	1-1827193147	17-OCT-14	17-OCT-14	TX0007975647	Issued
283165	DOCS Common App PMMS Raildocs	CPY-Copyright	1-1832700441	10-DEC-14	10-DEC-14	TX0008001822	Issued
283166	Train Management Software	CPY-Copyright	1-1607818761	22-JUL-14	22-JUL-14	TX7942141	Issued

283167	TripOptimizer PTC Integration	CPY- Copyright	1-2120294851	06-FEB-15	06-FEB-16	TX8042226	Issued
285322	Log File Download	CPY- Copyright	1-2770332201	07-OCT-15	07-OCT-15	TX8-211-117	Issued
285995	Copyright submission for GHOST PC application source code.	CPY- Copyright	1-31158559671	10-FEB-16	NA	NA	Filed
315500	Copyright for Service Program Effectiveness Tool (Data Lake Tool)	CPY- Copyright	1-4041201801	30-SEP-16	NA	NA	Filed

# Assigned IP Patents

Docket	dash	CO	Title	Filing Description	App Number	App Date	Status
180373	1	US	ENHANCED RECORDATION DEVICE FOR RAIL CAR INSPECTIONS	ORD-UTILITY PATENT FILING	11/785904	April 20, 2007	Filed
182706	1	US	WIRELESS MONITORING SYSTEM	PRI-PRIORITY APPLICATION	11/275188	December 16, 2005	Filed
204173	6	US	TRIP OPTIMIZATION SYSTEM AND METHOD FOR A TRAIN	ORD-UTILITY PATENT FILING	11/750716	May 18, 2007	Filed
226276A	1	US	LOCATION DETERMINATION SYSTEM	CIP-CONTINUATION IN PART	15/439090	February 22, 2017	Filed
235133	1	US	SYSTEM AND METHOD FOR OPERATING A TURBOCHARGED ENGINE	ORD-UTILITY PATENT FILING	12/555043	September 8, 2009	Filed
238941	7	US	METHOD AND SYSTEM FOR CONTROLLING ENGINE PERFORMANCE	DIV-DIVISIONAL FILING	13/863258	April 15, 2013	Filed
243591	8	US	EMISSIONS CONTROL SYSTEMS AND METHODS	CON-CONTINUATION	16/058625	August 8, 2018	Filed
245212	5	US	APPARATUS AND SYSTEM FOR DIRECTING EXHAUST GAS FLOW	CIP-CONTINUATION IN PART	14/952748	November 25, 2015	Filed
247489	9	US	SYSTEMS AND METHODS FOR DIAGNOSING AN ENGINE	DIV-DIVISIONAL FILING	16/023302	June 29, 2018	Filed
247901	3	US	DEVICE, METHOD, AND SYSTEM FOR EMISSIONS CONTROL	CON-CONTINUATION	15/354117	November 17, 2016	Filed
248398A	2	US	SYSTEMS AND METHODS FOR ENGINE CONTROL	DIV-DIVISIONAL FILING	16/023202	June 29, 2018	Filed
252746	7	US	MULTI-FUEL SYSTEM AND METHOD	CIP-CONTINUATION IN PART	15/095388	April 11, 2016	Filed
254902	12	US	SYSTEM AND METHOD FOR A COMPRESSOR	CIP-CONTINUATION IN PART	15/704656	September 14, 2017	Filed
254902	2	US	SYSTEM AND METHOD FOR A COMPRESSOR	ORD-UTILITY PATENT FILING	13/866435	April 19, 2013	Filed
255300A	1	US	METHOD FOR OPERATING AN ENGINE	CIP-CONTINUATION IN PART	15/013432	February 2, 2016	Filed
257856	3	US	APPARATUS AND METHOD FOR CONTROL OF MULTI-INVERTER POWER CONVERTER	PCT-PATENT COOPERATION TREATY	15/319402	December 16, 2016	Filed
258059	6	US	ADHESION CONTROL SYSTEM AND METHOD	DIV-DIVISIONAL FILING	15/662367	July 28, 2017	Filed
260472A	1	US	FUEL SELECTION METHOD AND RELATED SYSTEM FOR A MOBILE ASSET	CIP-CONTINUATION IN PART	14/847899	September 8, 2015	Filed
261674	8	US	SYSTEM AND METHOD FOR AUTOMATED ESTABLISHMENT OF A VEHICLE CONSIST	CIP-CONTINUATION IN PART	14/836063	August 26, 2015	Filed
262087A	1	US	METHODS AND SYSTEMS FOR DATA COMMUNICATIONS	CIP-CONTINUATION IN PART	14/193987	February 28, 2014	Filed
262214	3	US	SYSTEM AND METHOD FOR CONTROLLING AT LEAST ONE OF TRACTIVE OR BRAKING EFFORTS OF A VEHICLE SYSTEM	DIV-DIVISIONAL FILING	15/811222	November 13, 2017	Filed
262655	4	US	DEVICE FOR RULE-BASED DOCUMENT PARSING AND ANALYSIS	CIP-CONTINUATION IN PART	15/002150	January 20, 2016	Filed
262657A	1	US	VEHICLE CONTROL SYSTEM	CIP-CONTINUATION IN PART	15/411949	January 20, 2017	Filed
262663A	1	US	VEHICLE CONTROL SYSTEM	PRI-PRIORITY APPLICATION	15/299844	October 21, 2016	Filed
262735A	1	US	VEHICLE CONTROL SYSTEM	CIP-CONTINUATION IN PART	15/211104	July 15, 2016	Filed
262736A	1	US	EQUIPMENT CONTROL SYSTEM	PRI-PRIORITY APPLICATION	15/294164	October 14, 2016	Filed
262737	4	US	ROUTING DEVICE FOR NETWORK OPTIMIZATION	CIP-CONTINUATION IN PART	15/140679	April 28, 2016	Filed
263954	11	US	WIRELESS SYSTEM AND METHOD FOR MEASURING AN OPERATIVE CONDITION OF A MACHINE	CON-CONTINUATION	15/678403	August 16, 2017	Filed
264985	4	US	SYSTEM AND METHOD OF VEHICLE SYSTEM CONTROL	CON-CONTINUATION	15/674768	August 11, 2017	Filed
265063	1	US	SYSTEM AND METHOD OF OPERATING AN INTERNAL COMBUSTION ENGINE	PRI-PRIORITY APPLICATION	13/905691	May 30, 2013	Filed
265785	1	US	METHODS AND SYSTEM FOR A TURBOCHARGER	PRI-PRIORITY APPLICATION	14/931906	November 4, 2015	Filed
267684	7	US	SYSTEM AND METHOD FOR DETERMINING EFFECTIVENESS OF A FRICTION MODIFIER ALONG A ROUTE SEGMENT	CIP-CONTINUATION IN PART	15/671100	August 7, 2017	Filed
268091	3	US	SYSTEM AND METHOD FOR POWERING AN ENGINE-DRIVEN PLATFORM	PCT-PATENT COOPERATION TREATY	15/317507	December 9, 2016	Filed
268356	2	US	AERODYNAMIC CONTROL SYSTEM AND METHOD	CON-CONTINUATION	15/357159	November 21, 2016	Filed
268790	2	US	SYSTEMS AND METHODS FOR ROUTE EFFICIENCY MAPPING	ORD-UTILITY PATENT FILING	14/161747	January 23, 2014	Filed
268899	1	US	SYSTEM AND METHOD FOR FULL RANGE CONTROL OF DUAL ACTIVE BRIDGE	PRI-PRIORITY APPLICATION	14/547178	November 19, 2014	Filed
268912	5	US	SYSTEM AND METHOD FOR DETERMINING VEHICLE ORIENTATION IN A VEHICLE CONSIST	CIP-CONTINUATION IN PART	15/421978	February 1, 2017	Filed
269548	3	US	SYSTEM AND METHOD FOR CONTROLLING A VEHICLE	PCT-PATENT COOPERATION TREATY	14/899261	December 17, 2015	Filed
270480	5	US	SYSTEM AND METHOD INTEGRATING AN ENERGY MANAGEMENT SYSTEM AND YARD PLANNER SYSTEM	DIV-DIVISIONAL FILING	15/089574	April 3, 2016	Filed



270504	9	US	ROUTE EXAMINING SYSTEM AND METHOD	DIV-DIVISIONAL FILING	15/075118	March 19, 2016	Filed
270665	6	US	METHOD AND SYSTEMS FOR EXHAUST GAS RECIRCULATION	DIV-DIVISIONAL FILING	15/296556	October 18, 2016	Filed
270801	3	US	SYSTEMS FOR A MULTI-FUEL CAPABLE ENGINE	DIV-DIVISIONAL FILING	15/683298	August 22, 2017	Filed
270928A	3	US	VISUAL SCHEDULING SYSTEM AND METHOD OF VEHICLE MOVEMENT THROUGH YARDS	DDV-DESIGN DIVISIONAL	29/650438	June 6, 2018	Filed
271046	1	US	SYSTEM AND METHOD FOR CONTROLLING A DUAL FUEL ENGINE	PRI-PRIORITY APPLICATION	14/138200	December 23, 2013	Filed
271210	3	US	BUS BAR AND POWER ELECTRONIC DEVICE WITH CURRENT SHAPING TERMINAL CONNECTOR AND METHOD OF MAKING A TERMINAL CONNECTOR	PCT-PATENT COOPERATION TREATY	15/524288	May 4, 2017	Filed
271365	3	US	DISPLAY SCREEN WITH GRAPHICAL USER INTERFACE	DDV-DESIGN DIVISIONAL	29/603459	May 10, 2017	Filed
271367	3	US	DISPLAY SCREEN WITH GRAPHICAL USER INTERFACE	DDV-DESIGN DIVISIONAL	29/595619	March 1, 2017	Filed
271415	1	US	OPTICAL ROUTE EXAMINATION SYSTEM AND METHOD	PRI-PRIORITY APPLICATION	14/21672	March 18, 2014	Filed
271462A	2	US	ROUTE EXAMINATION SYSTEM AND METHOD	DIV-DIVISIONAL FILING	15/922555	March 15, 2018	Filed
271466	2	US	PRESSURE RELIEF VALVE SYSTEM	ORD-UTILITY PATENT FILING	14/747748	June 23, 2015	Filed
271784	1	US	METHOD AND SYSTEMS FOR EXHAUST GAS CONTROL	CIP-CONTINUATION IN PART	15/045616	February 17, 2016	Filed
272316	2	US	SYSTEMS AND METHOD FOR CONTROLLING AUTO-IGNITION	DIV-DIVISIONAL FILING	15/889662	February 6, 2018	Filed
272349A	1	US	DIFFERENTIAL FUELING BETWEEN DONOR AND NON-DONOR CYLINDERS IN ENGINES	CIP-CONTINUATION IN PART	15/150457	May 10, 2016	Filed
272741	2	US	VIDEO SYSTEM AND METHOD FOR DATA COMMUNICATION	ORD-UTILITY PATENT FILING	14/541370	November 14, 2014	Filed
272928	5	US	ROUTE MONITORING SYSTEM AND METHOD	CON-CONTINUATION	15/345158	November 7, 2016	Filed
273071	2	US	VEHICLE IMAGING SYSTEM AND METHOD	ORD-UTILITY PATENT FILING	14/457353	August 12, 2014	Filed
273456	1	US	VEHICLE TRACTION CONTROL SYSTEM AND METHOD	PRI-PRIORITY APPLICATION	14/496655	September 25, 2014	Filed
273456	4	US	VEHICLE CONTROL SYSTEM AND METHOD	CIP-CONTINUATION IN PART	15/907823	February 28, 2018	Filed
273881	3	US	SYSTEM AND METHOD FOR COOLING POWER ELECTRONICS	PCT-PATENT COOPERATION TREATY	15/517195	April 6, 2017	Filed
274210A	2	US	METHOD AND SYSTEMS FOR MANAGING CONDENSATE	ORD-UTILITY PATENT FILING	15/096391	April 12, 2016	Filed
274406	3	US	SYSTEM FOR AN EXHAUST GAS AFTERTREATMENT SYSTEM AND SUPPORT STRUCTURE	CIP-CONTINUATION IN PART	15/140797	April 28, 2016	Filed
274674	2	US	SYSTEM AND METHOD FOR CONTROLLING ELECTRICALLY DRIVEN ACCESSORIES	ORD-UTILITY PATENT FILING	14/972739	December 17, 2015	Filed
275592	1	US	SUBSTITUTION RATE CONTROL SYSTEM FOR AN ENGINE AND AN ASSOCIATED METHOD THEREOF	PRI-PRIORITY APPLICATION	14/477110	September 4, 2014	Filed
275931	6	US	METHOD AND SYSTEMS FOR EGR CONTROL	DIV-DIVISIONAL FILING	15/941291	March 30, 2018	Filed
276096	1	US	METHOD AND SYSTEMS FOR AIRFLOW CONTROL	PRI-PRIORITY APPLICATION	14/520539	October 22, 2014	Filed
276265A	1	US	SYSTEM AND METHOD FOR MANIPULATION PLATFORM	CIP-CONTINUATION IN PART	15/216192	July 21, 2016	Filed
276403	1	US	SYSTEM FOR CONTROLLING INJECTION OF FUEL IN ENGINE	PRI-PRIORITY APPLICATION	14/564158	December 9, 2014	Filed
276577	2	US	VEHICLE BUILDING SYSTEM AND METHOD	ORD-UTILITY PATENT FILING	15/142485	April 29, 2016	Filed
276609	2	US	SYSTEMS FOR DETECTING ELECTRICAL FAULTS IN A VEHICLE	ORD-UTILITY PATENT FILING	14/993078	January 11, 2016	Filed
276613	1	US	COMMUNICATION SYSTEM AND METHOD FOR CORRELATING WIRELESS COMMUNICATION PERFORMANCE WITH VEHICLE SYSTEM CONFIGURATIONS	PRI-PRIORITY APPLICATION	14/521505	October 23, 2014	Filed
276662	1	US	BOGIE SIDE FRAME	PDS-PRIORITY DESIGN APPLICATION	29/510230	November 26, 2014	Filed
276666	1	US	POWER ASSIGNMENT SYSTEM AND METHOD FOR FORMING VEHICLE SYSTEMS	PRI-PRIORITY APPLICATION	14/492226	September 22, 2014	Filed
276723	10	US	SYSTEM CONTROLLER ENCLOSURE	DDV-DESIGN DIVISIONAL	29/624860	November 3, 2017	Filed
276926	2	US	MULTI-FUEL ENGINE SYSTEM	ORD-UTILITY PATENT FILING	14/967062	December 11, 2015	Filed
276962	5	US	METHOD FOR OPERATING AN INTERNAL COMBUSTION ENGINE	PCT-PATENT COOPERATION TREATY	15/577834	November 29, 2017	Filed
276972	4	US	OIL FILTER SYSTEMS	CON-CONTINUATION	15/687794	August 28, 2017	Filed
277145	2	WO	ARRANGEMENT FROM ONE HEAD AND A FUEL INJECTOR	ORD-UTILITY PATENT FILING	PCT/AT2016/000035	April 8, 2016	Filed

277145	3	US	ARRANGEMENT FROM ONE HEAD AND A FUEL INJECTOR	PCT-PATENT COOPERATION TREATY	15/564433	October 5, 2017	Filed
277663	2	US	VEHICLE COMMUNICATION SYSTEM	CIP-CONTINUATION IN PART	15/377594	December 13, 2016	Filed
277823	1	US	System and Method for Controlling a Vehicle	CIP-CONTINUATION IN PART	15/149665	May 9, 2016	Filed
277854	1	US	INVERTER DRIVE SYSTEM, BUS BAR AND ASSEMBLY	PRI-PRIORITY APPLICATION	14/686939	April 15, 2015	Filed
277931	1	US	ENGINE CONTROL UNIT	PDS-PRIORITY DESIGN APPLICATION	29/541062	September 30, 2015	Filed
278009	5	US	BUSBAR	DDV-DESIGN DIVISIONAL	29/625991	November 14, 2017	Filed
278371	1	US	Unidirectional high power buck converter with an add on circuit for very low power boost capability	PRI-PRIORITY APPLICATION	14/973740	December 18, 2015	Filed
278442	1	US	SYSTEMS FOR FUEL DELIVERY	PRI-PRIORITY APPLICATION	14/811928	July 29, 2015	Filed
278952	2	US	VEHICLE CONSUMPTION MONITORING SYSTEM AND METHOD	ORD-UTILITY PATENT FILING	14/860782	September 22, 2015	Filed
278973	3	US	SYSTEM AND METHODS FOR OPTIMIZING FUEL CONSUMPTION	PCT-PATENT COOPERATION TREATY	15/520688	April 20, 2017	Filed
278975	6	US	SYSTEM AND METHOD FOR ENGINE CONTROL	DIV-DIVISIONAL FILING	16/107848	August 21, 2018	Filed
279163	10	US	SYSTEM AND METHOD FOR CONTROLLING A VEHICLE SYSTEM	CON-CONTINUATION	15/864518	January 8, 2018	Filed
279174	2	US	VEHICLE CONTROL SYSTEM AND METHOD	ORD-UTILITY PATENT FILING	15/055567	February 27, 2016	Filed
279528	5	US	INTEGRATED MOTOR AND AXLE APPARATUS AND METHOD	PCT-PATENT COOPERATION TREATY	15/524904	May 5, 2017	Filed
279728	1	US	SYSTEMS AND METHODS FOR DISPLAYING TEST DETAILS OF AN ENGINE CONTROL TEST	PRI-PRIORITY APPLICATION	15/072455	March 17, 2016	Filed
279783	3	US	DUAL-FUEL-COMBUSTION ENGINE	PCT-PATENT COOPERATION TREATY	15/736332	December 14, 2017	Filed
279794A	2	US	DATA COMMUNICATION SYSTEM AND METHOD	CON-CONTINUATION	15/918267	March 12, 2018	Filed
280223	1	US	SYSTEM AND METHOD FOR PASSIVELY COOLING AN ENCLOSURE BACKGROUND	PRI-PRIORITY APPLICATION	14/711405	May 13, 2015	Filed
281014	1	US	AERIAL CAMERA SYSTEM AND METHOD FOR IDENTIFYING ROUTE-RELATED HAZARDS	PRI-PRIORITY APPLICATION	15/061129	March 4, 2016	Filed
281224	2	US	TRANSPORTATION MONITORING SYSTEM AND METHOD	ORD-UTILITY PATENT FILING	14/990812	January 8, 2016	Filed
281433	3	US	DISPLAY SCREEN WITH SHIPMENT MANAGEMENT GRAPHICAL USER INTERFACE	DDV-DESIGN DIVISIONAL	29/645296	April 25, 2018	Filed
281508	1	US	CONNECTED SPACER	PDS-PRIORITY DESIGN APPLICATION	29/531226	June 24, 2015	Filed
281777	1	US	METHOD AND SYSTEMS FOR AIRFLOW CONTROL	PRI-PRIORITY APPLICATION	14/955106	December 1, 2015	Filed
282064	1	US	UNDERPLATFORM DAMPING MEMBERS AND METHODS FOR TURBOCHARGER ASSEMBLIES	PRI-PRIORITY APPLICATION	14/821234	August 7, 2015	Filed
282080	6	US	DISPLAY SCREEN WITH GRAPHICAL USER INTERFACE	DDV-DESIGN DIVISIONAL	29/654995	June 29, 2018	Filed
282127	1	US	BLOWER ASSEMBLY	PDS-PRIORITY DESIGN APPLICATION	29/547139	December 1, 2015	Filed
282158	2	US	SYSTEMS AND METHOD FOR A VEHICLE NETWORK	ORD-UTILITY PATENT FILING	15/135180	April 21, 2016	Filed
282379	2	US	METHOD AND SYSTEM FOR CALIBRATING EXHAUST VALVES	CIP-CONTINUATION IN PART	15/343511	November 4, 2016	Filed
283394A	1	US	ROUTE EXAMINING SYSTEM	CIP-CONTINUATION IN PART	15/797086	October 30, 2017	Filed
282409	1	US	SYSTEMS AND METHODS FOR A PORTABLE TESTING DEVICE	PRI-PRIORITY APPLICATION	15/001814	January 20, 2016	Filed
282442	2	US	SYSTEMS AND METHODS FOR BLOWER CONTROL	ORD-UTILITY PATENT FILING	15/378754	December 14, 2016	Filed
282747	2	US	SYSTEMS AND METHOD FOR A TRACTION SYSTEM	PRI-PRIORITY APPLICATION	15/331135	October 21, 2016	Filed
282830	3	US	TURBOCHARGER TRANSITION SECTION	DDV-DESIGN DIVISIONAL	29/644877	April 20, 2018	Filed
283062	1	US	TRACTION MOTOR BOOT MOUNT	PDS-PRIORITY DESIGN APPLICATION	29/563964	May 10, 2016	Filed
283087	2	US	COMMUNICATION SYSTEM AND METHOD OF A VEHICLE CONSIST	CIP-CONTINUATION IN PART	15/226953	August 3, 2016	Filed
283141	1	US	SYSTEM AND METHOD FOR HANDLING AUTOMOBILES AT A DISTRIBUTION SITE	PRI-PRIORITY APPLICATION	15/430734	February 13, 2017	Filed

283407	1	US	SYSTEMS AND METHODS FOR A VEHICLE INVERTER CONNECTION BUS AERIAL CAMERA SYSTEM, METHOD FOR IDENTIFYING ROUTE-RELATED HAZARDS, AND MICROSTRIP ANTENNA	PRI-PRIORITY APPLICATION	15/140812	April 28, 2016	Filed
283559	2	US	TUBE SHEET APPARATUS AND HEAT EXCHANGER SYSTEM AND METHOD FOR ENGINE CONTROL	CIP-CONTINUATION IN PART ORD-UTILITY PATENT FILING PRO-PROVISIONAL ORD-UTILITY PATENT FILING	15/819877 15/821741 62/483037 PCT/US2018/026496	November 21, 2017 November 22, 2017 April 7, 2017 April 6, 2018	Filed Filed Filed Filed
283612	2	WO	INTERMODAL TRANSPORTATION TERMINAL CONTROL SYSTEM AND METHOD	ORD-UTILITY PATENT FILING	15/339050	October 31, 2016	Filed
283660	2	US	SYSTEMS FOR AN ENGINE	PRI-PRIORITY APPLICATION	15/140252	April 27, 2016	Filed
283910	1	US	CENTRIFUGAL COMPRESSOR AND SYSTEM	PRI-PRIORITY APPLICATION	15/075339	March 21, 2016	Filed
284111	1	US	CONTROL SYSTEM AND METHOD FOR BRAKE BLEEDING	ORD-UTILITY PATENT FILING	15/058494	March 2, 2016	Filed
284162	2	US	VEHICLE CONTROL SYSTEM	PRI-PRIORITY APPLICATION	15/236789	August 15, 2016	Filed
284238	1	US	VEHICLE COMMUNICATION SYSTEMS AND CONTROL SYSTEMS	CIP-CONTINUATION IN PART	15/237070	August 15, 2016	Filed
284238A	1	US	ROUTE EXAMINATION SYSTEM	ORD-UTILITY PATENT FILING	15/861383	January 3, 2018	Filed
284381	3	US	ELECTRIC GROUND FAULT DETECTION SYSTEM AND METHOD	PRI-PRIORITY APPLICATION	15/232969	August 10, 2016	Filed
284493	1	US	CONTROL SYSTEM AND METHOD FOR APPLYING FORCE TO GRASP A BRAKE LEVER	ORD-UTILITY PATENT FILING	15/058550	March 2, 2016	Filed
284615	2	US	SYSTEMS AND METHODS FOR ROUTE MAPPING	PRI-PRIORITY APPLICATION	15/233105	August 10, 2016	Filed
284656	1	WO	SYSTEMS AND METHODS FOR ROUTE MAPPING	ORD-UTILITY PATENT FILING	PCT/US2017/040656	July 5, 2017	Filed
284724	1	US	METHODS AND SYSTEM FOR A TURBOCHARGER SYSTEM AND METHOD FOR VEHICLE CONTROL BASED ON DETECTED WHEEL CONDITION	PRI-PRIORITY APPLICATION	15/015206	February 4, 2016	Filed
284781	2	US	METHOD AND SYSTEMS FOR DIAGNOSING AN ENGINE	ORD-UTILITY PATENT FILING	15/486121	April 12, 2017	Filed
284788	1	US	SENSOR ASSEMBLY	PRI-PRIORITY APPLICATION	15/063043	March 7, 2016	Filed
284900	8	US	VEHICLE SENSOR SYSTEM	DDV-DESIGN DIVISIONAL	29/613171	August 8, 2017	Filed
284901	9	US	SENSOR SIGNAL PROCESSING SYSTEM AND METHOD	DDV-DESIGN DIVISIONAL	29/589735	January 4, 2017	Filed
284903	2	US	ENGINE CONTROL SYSTEM FOR REDUCING PARTICULATE MATTER	ORD-UTILITY PATENT FILING	15/372937	December 8, 2016	Filed
284937	2	US	VEHICLE SENSOR ASSEMBLY	ORD-UTILITY PATENT FILING	15/365980	December 1, 2016	Filed
284939	7	US	VEHICLE CONTROL SYSTEM FOR A RADIATOR FAN	ORD-UTILITY PATENT FILING	15/370749	December 6, 2016	Filed
285016	1	US	VEHICLE SENSOR ASSEMBLY	PRI-PRIORITY APPLICATION	15/061522	March 4, 2016	Filed
285279	1	US	SYSTEM AND METHOD FOR DETERMINING GRADE ERRORS OF A ROUTE	PRI-PRIORITY APPLICATION	15/073844	March 18, 2016	Filed
285480	7	US	POWER CONTROL SYSTEM FOR A VEHICLE SYSTEM	ORD-UTILITY PATENT FILING	15/370505	December 6, 2016	Filed
285511	2	US	CONTROL SYSTEM FOR COORDINATING ROBOTIC MACHINES TO COLLABORATE ON TASKS	CON-CONTINUATION	15/959264	April 22, 2018	Filed
285534	2	US	LOCOMOTIVE CONTROL SYSTEM WITH TASK MANAGER SYSTEM AND METHOD FOR CONTROLLING ROBOTIC MACHINE ASSEMBLES TO PERFORM TASKS ON VEHICLES	ORD-UTILITY PATENT FILING	15/461548	March 17, 2017	Filed
285610	1	US	METHOD AND SYSTEMS FOR AN EGR COOLER INCLUDING COOLING TUBES WITH A COMPLIANT REGION	PRI-PRIORITY APPLICATION	15/198673	June 30, 2016	Filed
285610A	1	US	METHOD AND SYSTEMS FOR AN EGR COOLER INCLUDING COOLING TUBES WITH A COMPLIANT REGION	CIP-CONTINUATION IN PART	16/114318	August 28, 2018	Filed
285612	1	US	SYSTEMS AND METHODS FOR FUEL INJECTOR CONTROL	PRI-PRIORITY APPLICATION	15/183850	June 16, 2016	Filed
285774	1	US	METHOD AND SYSTEMS FOR DRAINING FLUID FROM AN ENGINE	PRI-PRIORITY APPLICATION	15/197038	June 29, 2016	Filed
285784	1	US	METHOD AND SYSTEMS FOR ADJUSTING ENGINE AIRFLOW	PRI-PRIORITY APPLICATION	15/077287	March 22, 2016	Filed
285854	1	US	VEHICLE HANDLING SYSTEM AND METHOD	PRI-PRIORITY APPLICATION	15/377049	December 13, 2016	Filed
285869	2	US	HEAT TRANSFER CHASSIS AND METHOD FOR FORMING THE SAME	DIV-DIVISIONAL FILING	16/043321	July 24, 2018	Filed
285937	2	US	ELECTRONICS ENCLOSURE	CIP-CONTINUATION IN PART	15/918366	March 12, 2018	Filed
285952	2	US	ELECTRONICS ENCLOSURE	DDV-DESIGN DIVISIONAL	29/614800	August 23, 2017	Filed
285993	1	US	ELECTRONICS ENCLOSURE	CIP-CONTINUATION IN PART	15/222478	July 28, 2016	Filed
285994	1	US	ELECTRONICS ENCLOSURE	PDS-PRIORITY DESIGN APPLICATION	29/574118	August 12, 2016	Filed
285995	1	US	ELECTRONICS ENCLOSURE	CPY-COPYRIGHT	1-31158559671	February 10, 2016	Filed
286114	1	US	ELECTRONICS ENCLOSURE	PRI-PRIORITY APPLICATION	15/210453	July 14, 2016	Filed

286154	1	US	BUSBAR CLEAN	PDS-PRIORITY DESIGN APPLICATION	29/571707	July 21, 2016	Filed
286168	2	US	DEPLOYABLE STEP	DDV-DESIGN DIVISIONAL	29/649299	May 29, 2018	Filed
287141	1	US	DIFFERENTIAL CYLINDER BALANCING FOR INTERNAL COMBUSTION ENGINE	PRI-PRIORITY APPLICATION	15/282094	September 30, 2016	Filed
287151	1	US	SYSTEM FOR CONTROLLING OR MONITORING A VEHICLE SYSTEM ALONG A ROUTE	PRI-PRIORITY APPLICATION	15/231078	August 8, 2016	Filed
287151	2	WO	MODULATED TURBINE COMPONENT COOLING	ORD-UTILITY PATENT FILING	PCT/US2017/042516	July 18, 2017	Filed
287165	1	US	MULTIPLE VEHICLE CONTROL SYSTEM	PRI-PRIORITY APPLICATION	15/086403	March 31, 2016	Filed
287206	1	US	METHOD AND SYSTEMS FOR A TURBOCHARGER	PRI-PRIORITY APPLICATION	15/190496	June 23, 2016	Filed
287281	1	US	METHODS AND SYSTEM FOR DIAGNOSING FUEL INJECTORS OF AN ENGINE	PRI-PRIORITY APPLICATION	15/248715	August 26, 2016	Filed
287405	3	US	CABLE CONNECTOR	DDV-DESIGN DIVISIONAL	29/655039	June 29, 2018	Filed
287434	1	US	SYSTEMS AND METHODS FOR REDUCED OIL CARRYOVER	PRI-PRIORITY APPLICATION	15/085724	March 30, 2016	Filed
310870	1	US	METHODS AND SYSTEM FOR A FUEL SYSTEM	PRI-PRIORITY APPLICATION	15/215620	July 21, 2016	Filed
310871	2	WO	SYSTEM AND METHOD FOR INDEXING VEHICLES OF A VEHICLE SYSTEM	ORD-UTILITY PATENT FILING	PCT/US2018/017870	February 12, 2018	Filed
310875	3	US	VEHICLE CONTROL SYSTEM	CON-CONTINUATION	15/705752	September 15, 2017	Filed
310950	1	US	MOVEABLE NOZZLE ASSEMBLY AND METHOD FOR A TURBOCHARGER	PRI-PRIORITY APPLICATION	15/155823	May 16, 2016	Filed
311179	1	US	SYSTEMS AND METHOD FOR AN ENGINE BYPASS VALVE	PRI-PRIORITY APPLICATION	15/245212	August 24, 2016	Filed
311180	1	US	METHOD AND SYSTEMS FOR AN ENERGY RECOVERY AND ENERGY CONVERTING UNIT FOR AN ENGINE	PRI-PRIORITY APPLICATION	15/199260	June 30, 2016	Filed
311199	1	US	AFTER TREATMENT BYPASS FOR INTERNAL COMBUSTION ENGINE DURING COLD START AND IDLE OPERATION	PRI-PRIORITY APPLICATION	15/367569	December 2, 2016	Filed
311214	2	US	MULTISENSORY DATA FUSION SYSTEM AND METHOD FOR AUTONOMOUS ROBOTIC OPERATION	ORD-UTILITY PATENT FILING	15/399313	January 5, 2017	Filed
311234	1	US	VEHICLE CONTROL SYSTEMS AND METHODS	PRI-PRIORITY APPLICATION	15/359909	November 23, 2016	Filed
311235	1	US	COOLING CONTROL SYSTEMS	PRI-PRIORITY APPLICATION	15/276122	September 26, 2016	Filed
311347	1	US	SYSTEM AND METHOD FOR ADJUSTING TORQUE DISTRIBUTION	PRI-PRIORITY APPLICATION	15/265848	September 15, 2016	Filed
311361	1	US	SYSTEMS FOR DIAGNOSING A CONDITION OF AN ENGINE	PRI-PRIORITY APPLICATION	15/278049	September 28, 2016	Filed
311417A	1	US	SYSTEM, METHOD AND APPARATUS FOR FASTENING COMPONENTS	PRI-PRIORITY APPLICATION	15/277571	September 27, 2016	Filed
312723A	1	US	TURBOCHARGER BEARING ASSEMBLY AND METHOD FOR PROVIDING THE SAME	CIP-CONTINUATION IN PART	15/336890	October 28, 2016	Filed
312796	1	US	FAN APPARATUS	PRI-PRIORITY APPLICATION	15/132520	April 19, 2016	Filed
312829	1	US	VEHICLE PROPULSION SYSTEM AND METHOD OF CONTROLLING THE SAME	PRI-PRIORITY APPLICATION	15/192586	June 24, 2016	Filed
312891	1	US	VEHICLE PROPULSION SYSTEM AND METHOD	PRI-PRIORITY APPLICATION	15/172730	June 3, 2016	Filed
313090	2	US	DISTRIBUTED VEHICLE SYSTEM CONTROL SYSTEM AND METHOD	ORD-UTILITY PATENT FILING	15/460431	March 16, 2017	Filed
313199	1	US	SYSTEM, METHOD AND APPARATUS FOR ALTERNATOR FOR ELECTRIC MACHINE	PRI-PRIORITY APPLICATION	15/378117	December 14, 2016	Filed
313213	1	US	BATTERY MODULE	PDS-PRIORITY DESIGN APPLICATION	29/595064	February 24, 2017	Filed
313246	1	US	METHODS AND SYSTEM FOR DIAGNOSING AN ENGINE COMPONENT BASED ON AN ENGINE SPEED PROFILE DURING AN ENGINE SHUTDOWN EVENT	PRI-PRIORITY APPLICATION	15/267521	September 16, 2016	Filed
313282	2	US	CONTROL SYSTEM AND METHOD FOR ROBOTIC MOTION PLANNING AND CONTROL	ORD-UTILITY PATENT FILING	15/282102	September 30, 2016	Filed
313339	2	US	SYSTEMS AND METHODS FOR CONTROL OF ROBOTIC MANIPULATION	ORD-UTILITY PATENT FILING	15/293905	October 14, 2016	Filed
313342	2	US	INTEGRATED ROBOTIC SYSTEM AND METHOD FOR AUTONOMOUS VEHICLE MAINTENANCE	ORD-UTILITY PATENT FILING	15/292605	October 13, 2016	Filed
313399	1	US	OIL CARRYOVER REDUCTION SYSTEM	PRI-PRIORITY APPLICATION	15/334416	October 26, 2016	Filed
313402	1	US	RIPPLE CURRENT REDUCTION SYSTEM	PRI-PRIORITY APPLICATION	15/279460	September 29, 2016	Filed
313446	1	US	SYSTEMS AND METHOD FOR EXHAUST GAS RECIRCULATION	PRI-PRIORITY APPLICATION	15/241255	August 19, 2016	Filed
313456	1	US	VEHICLE CONTROL SYSTEM	PRI-PRIORITY APPLICATION	15/397209	January 3, 2017	Filed
313617	1	US	SYSTEM AND METHOD FOR CONTROLLING A VEHICLE	PRI-PRIORITY APPLICATION	15/342774	November 3, 2016	Filed

313740	1	US	METHOD AND SYSTEMS FOR AN EXHAUST GAS RECIRCULATION COOLER INCLUDING TWO SECTIONS	PRI-PRIORITY APPLICATION	15/241152	August 19, 2016	Filed
313870	1	US	COMMUNICATION SYSTEMS	PRI-PRIORITY APPLICATION	15/360118	November 23, 2016	Filed
313957	2	US	SYSTEMS FOR VEHICLE PARTICULATE FILTER REGENERATION	ORD-UTILITY PATENT FILING	15/670063	August 7, 2017	Filed
314133	2	US	DISPLAY WITH CONNECTOR AND COVER	DDV-DESIGN DIVISIONAL	29/635456	January 31, 2018	Filed
314208	1	US	CURRENT REDUCTION SYSTEM FOR INVERTERS CONNECTED TO A COMMON BUS	PRO-PROVISIONAL	62/484773	April 12, 2017	Filed
314208	2	US	CURRENT REDUCTION SYSTEM FOR INVERTERS CONNECTED TO A COMMON BUS	ORD-UTILITY PATENT FILING	15/921299	March 14, 2018	Filed
314208	3	WO	CURRENT REDUCTION SYSTEM FOR INVERTERS CONNECTED TO A COMMON BUS	ORD-UTILITY PATENT FILING	PCT/US2018/026399	April 6, 2018	Filed
314367	1	US	RIBBED CONVOLUTION MUFFLER	PDS-PRIORITY DESIGN APPLICATION	29/593368	February 8, 2017	Filed
314410	1	US	METHOD AND SYSTEMS FOR A MULTISTAGE EXHAUST GAS COOLER	PRO-PROVISIONAL	62/482303	April 6, 2017	Filed
314410	2	US	METHOD AND SYSTEMS FOR A MULTISTAGE EXHAUST GAS COOLER	ORD-UTILITY PATENT FILING	15/973299	May 7, 2018	Filed
314410	3	WO	METHOD AND SYSTEMS FOR A MULTISTAGE EXHAUST GAS COOLER	ORD-UTILITY PATENT FILING	PCT/US2018/026395	April 6, 2018	Filed
314410	4	US	METHOD AND SYSTEMS FOR A MULTISTAGE EXHAUST GAS COOLER	CON-CONTINUATION	15/973299	May 7, 2018	Filed
314710	2	US	SYSTEM AND METHOD FOR SENSING LUBRICANT AND ENGINE HEALTH	CIP-CONTINUATION IN PART	15/884889	January 31, 2018	Filed
314829	1	US	A POWER SYSTEM AND AN ASSOCIATED METHOD THEREOF	PRI-PRIORITY APPLICATION	15/675845	August 14, 2017	Filed
314831	1	US	METHODS AND SYSTEM FOR A FUEL SYSTEM	PRO-PROVISIONAL	62/451843	January 30, 2017	Filed
314831	2	US	METHODS AND SYSTEM FOR DIAGNOSING A HIGH-PRESSURE FUEL PUMP IN A FUEL SYSTEM	ORD-UTILITY PATENT FILING	15/839670	December 12, 2017	Filed
315036	1	US	VEHICLE MONITORING SYSTEM	PRO-PROVISIONAL	62/486059	April 17, 2017	Filed
315036	2	US	VEHICLE MONITORING SYSTEM	ORD-UTILITY PATENT FILING	15/916823	March 9, 2018	Filed
315039	1	US	SYSTEM AND METHOD FOR CONTROLLING A VEHICLE	PRO-PROVISIONAL	62/480590	April 3, 2017	Filed
315039	2	US	SYSTEM AND METHOD FOR CONTROLLING A VEHICLE	ORD-UTILITY PATENT FILING	15/796960	October 30, 2017	Filed
315039	3	WO	SYSTEM AND METHOD FOR CONTROLLING A VEHICLE	ORD-UTILITY PATENT FILING	PCT/US2017/059440	November 1, 2017	Filed
315128	1	US	POWER SYSTEM AND ASSOCIATED SYSTEM	PRI-PRIORITY APPLICATION	15/643537	July 7, 2017	Filed
315183	1	US	EXHAUST GAS RECIRCULATION SYSTEM AND METHOD	CIP-CONTINUATION IN PART	15/428318	February 9, 2017	Filed
315330	2	WO	A POWER SYSTEM AND AN ASSOCIATED METHOD THEREOF	ORD-UTILITY PATENT FILING	PCT/US2018/025935	April 3, 2018	Filed
315474	1	US	METHODS AND SYSTEM FOR SKIP-FIRING OF AN ENGINE	PRO-PROVISIONAL	62/459799	February 16, 2017	Filed
315474	2	WO	METHODS AND SYSTEM FOR SKIP-FIRING OF AN ENGINE	ORD-UTILITY PATENT FILING	PCT/US2018/018463	February 16, 2018	Filed
315499	2	US	ROUTE INSPECTION SYSTEM	ORD-UTILITY PATENT FILING	15/651067	July 17, 2017	Filed
315500	1	US	Copyright for Service Program Effectiveness Tool (Data Lake Tool)	ORD-UTILITY PATENT FILING	1-4041201801	September 30, 2016	Filed
315664	1	US	METHOD AND SYSTEMS FOR A MULTI-NEEDLE FUEL INJECTOR	PRO-PROVISIONAL	62/454401	February 3, 2017	Filed
315664	2	US	METHOD AND SYSTEMS FOR A MULTI-NEEDLE FUEL INJECTOR	ORD-UTILITY PATENT FILING	15/875787	January 19, 2018	Filed
315829A	1	US	THERMAL MANAGEMENT SYSTEM AND METHOD	CIP-CONTINUATION IN PART	15/821729	November 22, 2017	Filed
316169	1	US	MONITORING SYSTEM FOR DETECTING DEGRADATION OF A PROPULSION SUBSYSTEM	PRO-PROVISIONAL	62/491765	April 28, 2017	Filed
316169	3	WO	MONITORING SYSTEM FOR DETECTING DEGRADATION OF A PROPULSION SUBSYSTEM	ORD-UTILITY PATENT FILING	PCT/US2018/030231	April 30, 2018	Filed
316546	2	US	VEHICLE CONTROL SYSTEM	ORD-UTILITY PATENT FILING	15/883856	January 30, 2018	Filed
316546	3	WO	VEHICLE CONTROL SYSTEM	ORD-UTILITY PATENT FILING	PCT/US18/17304	February 7, 2018	Filed
316567	1	US	RAIL CLEANER	PDS-PRIORITY DESIGN APPLICATION	29/601691	April 25, 2017	Filed
316738	3	US	BUSBAR	DDV-DESIGN DIVISIONAL	29/643127	April 4, 2018	Filed
317154	1	US	BUSBAR	PDS-PRIORITY DESIGN APPLICATION	29/602699	May 2, 2017	Filed
317177	1	US	INVERTER SYSTEMS	PRO-PROVISIONAL	62/665169	May 1, 2018	Filed
317429	2	US	ROUTE EXAMINING SYSTEM	ORD-UTILITY PATENT FILING	15/7717207	September 27, 2017	Filed
317559	1	US	VEHICLE CONTROL SYSTEM	PRO-PROVISIONAL	62/491234	April 27, 2017	Filed

317559	2	US	VEHICLE CONTROL SYSTEM	ORD-UTILITY PATENT FILING	15/918002	March 12, 2018	Filed
317600	1	US	METHODS AND SYSTEMS FOR A DUAL FUEL ENGINE	PRO-PROVISIONAL	62/692530	June 29, 2018	Filed
317784	1	US	CONTROL SYSTEM AND METHOD FOR VEHICLES WITH DYNAMIC BRAKING	PRO-PROVISIONAL	62/663761	April 27, 2018	Filed
318134	3	US	BUSBAR	DDV-DESIGN DIVISIONAL	29/658897	August 3, 2018	Filed
318138	1	US	GEARBOX ASSEMBLY	PRO-PROVISIONAL	62/657469	April 13, 2018	Filed
318159	1	US	BUS BAR ASSEMBLY	PDS-PRIORITY DESIGN APPLICATION	29/649331	May 29, 2018	Filed
318230	1	US	VEHICLE HEALTH EVALUATION SYSTEM	PRO-PROVISIONAL	62/608594	December 21, 2017	Filed
318357	1	US	BATTERY EXCHANGE SYSTEM FOR BATTERY-POWERED VEHICLES USING AUXILIARY BATTERY	PRO-PROVISIONAL	62/549526	August 24, 2017	Filed
318357	2	US	TBD	ORD-UTILITY PATENT FILING	16/100375	August 10, 2018	Filed
318454	1	US	ENGINE CONTROL SYSTEM	PRO-PROVISIONAL	62/689304	June 25, 2018	Filed
318468	1	US	VEHICLE HEALTH EVALUATION SYSTEM	PRO-PROVISIONAL	62/608730	December 21, 2017	Filed
318832	2	WO	VEHICLE COMMUNICATION SYSTEM	ORD-UTILITY PATENT FILING	PCT/US18/18689	February 20, 2018	Filed
318850	1	US	RAIL VEHICLE TRACTION PIN	PDS-PRIORITY DESIGN APPLICATION	29/640103	March 12, 2018	Filed
319228	1	US	HIGH VOLTAGE CHOPPER PANEL BUSBAR	PDS-PRIORITY DESIGN APPLICATION	29/650744	June 8, 2018	Filed
319380	2	US	SYSTEM AND METHOD FOR ARRANGING TRANSPORTATION SYSTEMS FOR TRAVEL	ORD-UTILITY PATENT FILING	15/923461	March 16, 2018	Filed
319517	1	US	METHODS AND SYSTEMS FOR MITIGATING KNOCK TO ENGINE CYLINDERS BASED ON INDIVIDUAL CYLINDER KNOCK SENSOR OUTPUTS	PRO-PROVISIONAL	62/670567	May 11, 2018	Filed
319756	1	US	MODULAR EXHAUST OUTLET	PDS-PRIORITY DESIGN APPLICATION	29/649613	May 31, 2018	Filed
320110	1	US	MOTOR SUSPENSION ASSEMBLY	PRO-PROVISIONAL	62/526557	June 29, 2017	Filed
320110	2	US	MOTOR SUSPENSION ASSEMBLY	ORD-UTILITY PATENT FILING	15/981657	May 16, 2018	Filed
320304	1	US	METHOD AND SYSTEMS FOR PARTICULATE MATTER CONTROL	PRO-PROVISIONAL	62/669245	May 9, 2018	Filed
320568	1	US	ELECTRICAL SYSTEM TESTER	PDS-PRIORITY DESIGN APPLICATION	29/637185	February 14, 2018	Filed
320924	1	US	POWER GENERATION SYSTEM AND ASSOCIATED METHOD	PRI-PRIORITY APPLICATION	15991255	May 29, 2018	Filed
321051	1	US	CERAMIC PERMANENT MAGNET PROTECTION	PRI-PRIORITY APPLICATION	15/859908	January 2, 2018	Filed
323107	1	US	HYBRID VEHICLE CONTROL SYSTEM	PRI-PRIORITY APPLICATION	15/899216	February 19, 2018	Filed
323187	1	US	ADAPTIVE NETWORK MESSAGE TRANSMISSION SCHEDULING DEVICE	PRO-PROVISIONAL	62/646189	March 21, 2018	Filed
323378	1	US	VEHICLE BATTERY CHARGING SYSTEM	PRI-PRIORITY APPLICATION	15/860214	January 2, 2018	Filed
323382	1	US	MULTIVARIABLE DYNAMIC CONTROL SYSTEM OF A MULTI-FUEL ENGINE	PRI-PRIORITY APPLICATION	15/899068	February 19, 2018	Filed
324031	1	US	LOCOMOTIVE POSITIONING DATA VERIFICATION SYSTEM	PRO-PROVISIONAL	62/715096	August 6, 2018	Filed
324050	1	US	SOOT REDUCTION ASSEMBLIES FOR ENGINES	PRO-PROVISIONAL	62/616702	January 12, 2018	Filed
324050	2	US	TBD	ORD-UTILITY PATENT FILING	16/059730	August 9, 2018	Filed
324050A	1	US	SOOT REDUCTION ASSEMBLIES FOR ENGINES	PRO-PROVISIONAL	62/623194	January 29, 2018	Filed
324161	1	US	MODULAR CAM SHAFT	PDS-PRIORITY DESIGN APPLICATION	29/649945	June 4, 2018	Filed
324618	1	US	PRESSURE REGULATOR BLOCK	PDS-PRIORITY DESIGN APPLICATION	29/653083	June 12, 2018	Filed
324618A	1	US	PRESSURE REGULATOR AND PISTON	PDS-PRIORITY DESIGN APPLICATION	29/653090	June 12, 2018	Filed
324621	1	US	OIL FILTER HOUSING	PDS-PRIORITY DESIGN APPLICATION	29/649583	May 31, 2018	Filed
325076	1	US	EXHAUST STACK	PDS-PRIORITY DESIGN APPLICATION	29/653323	June 14, 2018	Filed
325628	1	US	Locomotive Control to Reduce Derailment Risk	PRO-PROVISIONAL	62/715859	August 8, 2018	Filed
326052	1	US	LOCOMOTIVE CONTROL SYSTEM	CIP-CONTINUATION IN PART	15/958831	April 20, 2018	Filed

326053	1	US	LOCOMOTIVE CONTROL SYSTEM	PRI-PRIORITY APPLICATION	15/958872	April 20, 2018	Filed
326189	1	US	LOCOMOTIVE CONTROL SYSTEM	CIP-CONTINUATION IN PART	15/958839	April 20, 2018	Filed
326190	1	US	LOCOMOTIVE CONTROL SYSTEM	PRI-PRIORITY APPLICATION	15/958860	April 20, 2018	Filed
326566	1	US	LOCOMOTIVE CONTROL SYSTEM AND METHOD	PRO-PROVISIONAL	62/726526	September 4, 2018	Filed
326657	1	US	LOCOMOTIVE PROPULSION SYSTEM	PRI-PRIORITY APPLICATION	16/050361	July 31, 2018	Filed

**PATENT**

**REEL: 060032 FRAME: 0263**

**RECORDED: 05/26/2022**