504094818 11/14/2016 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4141486

SUBMISSION TYPE:		NEW ASSIGNMENT	
ATURE OF CONVEYA	NCE:	ASSIGNMENT	
CONVEYING PARTY D	ΑΤΑ		
		Name	Execution Date
QUANTUM FUEL SYS	TEMS TECH	NOLOGIES WORLDWIDE, INC.	07/13/2016
RECEIVING PARTY D	ΑΤΑ		
Name:	DOUGLAS	S ACQUISITIONS LLC	
Street Address:	125 EAST	SIR FRANCIS DRAKE BOULEVARD	
Internal Address:	SUITE 400)	
City:	LARKSPU	IR	
State/Country:	CALIFOR	NIA	
Postal Code:	94939		
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PROPERTY NUMBERS			
Property Type		Number	
Application Number:	14	514070	
CORRESPONDENCE			
Fax Number:			
Correspondence will b		e e-mail address first; if that is unsu	
Correspondence will k using a fax number, if	provided; if	that is unsuccessful, it will be sent	
<i>Correspondence will L using a fax number, if</i> Email:	f provided; if pat	f that is unsuccessful, it will be sent tents@bakerlaw.com	
<i>Correspondence will & using a fax number, if</i> Email: Correspondent Name:	f provided; if pat MA	f that is unsuccessful, it will be sent tents@bakerlaw.com ARK H. KRIETZMAN	via US Mail.
<i>using a fax number, if</i> Email: Correspondent Name: Address Line 1:	f provided; if pat MA 105	f that is unsuccessful, it will be sent tents@bakerlaw.com ARK H. KRIETZMAN 50 CONNECTICUT AVE, N.W., SUITE	via US Mail.
<i>Correspondence will & using a fax number, if</i> Email: Correspondent Name:	f provided; if pat MA 105 BA	f that is unsuccessful, it will be sent tents@bakerlaw.com ARK H. KRIETZMAN	<i>via US Mail.</i> 1100
Correspondence will b using a fax number, if Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	i provided; if pat MA 105 BA WA	f that is unsuccessful, it will be sent tents@bakerlaw.com ARK H. KRIETZMAN 50 CONNECTICUT AVE, N.W., SUITE KER & HOSTETLER LLP ASHINGTON, CALIFORNIA 20036-530	<i>via US Mail.</i> 1100
Correspondence will L using a fax number, if Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	provided; if pat MA 105 BA WA UMBER:	that is unsuccessful, it will be sent tents@bakerlaw.com ARK H. KRIETZMAN 50 CONNECTICUT AVE, N.W., SUITE KER & HOSTETLER LLP ASHINGTON, CALIFORNIA 20036-530 044174.020932	<i>via US Mail.</i> 1100
Correspondence will b using a fax number, if Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER:	provided; if pat MA 105 BA WA UMBER:	that is unsuccessful, it will be sent tents@bakerlaw.com ARK H. KRIETZMAN 50 CONNECTICUT AVE, N.W., SUITE KER & HOSTETLER LLP ASHINGTON, CALIFORNIA 20036-530 044174.020932 KAJSA M. BOHMAN	<i>via US Mail.</i> 1100
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Correspondence will b using a fax number, if Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER: BIGNATURE: DATE SIGNED: Total Attachments: 10	provided; if pat MA 108 BA WA	It that is unsuccessful, it will be senttents@bakerlaw.comARK H. KRIETZMAN50 CONNECTICUT AVE, N.W., SUITEKER & HOSTETLER LLPASHINGTON, CALIFORNIA 20036-530044174.020932KAJSA M. BOHMAN/Kajsa M. Bohman/11/14/2016	<i>via US Mail.</i> 1100
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Correspondence will b using a fax number, if Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER: BIGNATURE: DATE SIGNED: Total Attachments: 10	provided; if pat MA 105 BA WA UMBER: Jas_Patent_ glas_Patent_ glas_Patent_	# that is unsuccessful, it will be sent tents@bakerlaw.com ARK H. KRIETZMAN 50 CONNECTICUT AVE, N.W., SUITE KER & HOSTETLER LLP ASHINGTON, CALIFORNIA 20036-530 044174.020932 KAJSA M. BOHMAN /Kajsa M. Bohman/ 11/14/2016 Assignment#page4.tif Assignment#page5.tif Assignment#page6.tif	<i>via US Mail.</i> 1100

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ASSIGNMENT AND ASSUMPTION AGREEMENT (PATENTS)

This Assignment and Assumption Agreement (this "Assignment") is made as of July 13, 2016, by and between Quantum Fuel Systems Technologies Worldwide, Inc. a Delaware corporation ("Seller"), and Douglas Acquisitions LLC, a California limited liability company ("Buyer"), in connection with the closing of the transactions contemplated by that certain Asset Purchase Agreement dated as of April 8, 2016, as amended, between Buyer, Seller, The K&M Douglas Trust, and the Douglas Irrevocable Descendant's Trust (the "Agreement" with capitalized terms used but not defined herein having the meanings given to them in the Agreement).

In consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, Buyer and Seller hereby agree as follows:

1. Upon the terms and subject to the conditions of the Agreement, Seller hereby assigns, transfers and conveys to Buyer all of Seller's right, title, and interest throughout the world in and to all of Seller's patents and patent applications (including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent application or application for other rights based in whole or in part on the above-referenced patent application), including without limitation the patents and patent applications listed in Schedule A attached hereto, the underlying inventions, discoveries, works, designs, or processes described, shown or claimed therein, implicitly or explicitly, and any and all letters patent, whether U.S. or foreign, that are or may be granted therefrom including without limitation any extensions, continuations, continuations-in-part, divisions, counterparts, substitutes, reissues and renewals thereof, or other equivalents thereof (collectively, the "Assigned Assets"), and further, all rights and privileges pertaining to the Assigned Assets including without limitation the right, if any, to sue, bring other actions, and recover damages for past, present and future infringement thereof.

2. Seller further assigns to and empowers Buyer, its successors, assigns or nominees, all rights to make applications for patents or other forms of protection for said inventions and to prosecute such applications and said Assigned Assets, as well as to claim and receive the benefit of the right of priority provided by the Paris Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and the right to invoke and claim such right of priority without further written or oral authorization.

3. Seller further agrees that this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose regarding the subject matter hereof, as well as constituting proof of the right of Buyer or its successors, assigns or nominees to apply for patent or other proper protection for said inventions, and to claim the aforesaid benefits of the right of priority provided by the Paris Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

4. This Assignment shall be governed by and construed in accordance with the laws of the State of California without giving effect to the conflict of laws principles thereof.

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PATENT REEL: 049362 FRAME: 0649 5. None of the provisions of this Assignment may be waived, changed or altered except in a signed writing by the party against whom enforcement of the same is sought.

6. Notwithstanding anything to the contrary, nothing herein is intended to, nor shall it, extend, amplify or otherwise alter the representations, warranties, covenants and obligations of the parties contained in the Agreement or the survival thereof. In the event of a conflict between the terms and conditions of this Assignment and the terms and conditions of the Agreement, the terms and conditions of the Agreement shall govern, supersede and prevail.

7. This Assignment may be executed in one or more counterparts, each of which will be deemed to be an original and all of which, when taken together, will be deemed to constitute one and the same agreement. The exchange of copies of this Assignment and of signature pages by facsimile transmission or scanned copy and e-mail shall constitute effective execution and delivery of this Assignment.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Assignment and Assumption Agreement (Patents) on the date first written above.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC.

and the second 85.00

Name: W. Brian Olson Title: Chief Executive Officer

DOUGLAS ACQUISITIONS LLC

By ______ Name: Tim McGaw Title: President

[Signature Page to Assignment and Assumption Agreement (Patents)]

PATENT REEL: 0**39362** FRAME: 0**634**

IN WITNESS WHEREOF, the parties hereto have executed this Assignment and Assumption Agreement (Patents) on the date first written above.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC.

By _____ Name: W. Brian Olson Title: Chief Executive Officer

DOUGLAS ACQUISITIONS LLC

By______ Name: Tim McGaw Title: President

[Signature Page to Assignment and Assumption Agreement (Patents)]

PATENT REEL: 089362 FRAME: 0638

Schedule A

Patents

(See Attached)

PATENT REEL: 0**39362** FRAME: 0636

DWT 29891799v4 0091125-000010

	699255	20058003143 2.8	Granted	China		9/23/2005	TANK SEAL
	7,837,054	11/234,556	Granted	United States	11/23/2010	9/23/2005	TANK SEAL
	7,222,836	10/865,961	Granted	United States	5/29/2007	6/10/2004	SELF-BALANCING POPPET
	6,041,762	09/134,777	Granted	United States	3/28/2000	8/15/1998	CONTROL MODULE FOR NATURAL GAS FUEL SUPPLY FOR A VEHICLE
1	5,887,799	08/927,190	Granted	United States	3/30/1999	9/11/1997	DUAL FUEL INJECTOR
	1193387	003084647	Granted	Netherland	7/27/2005	9/27/2000	GASEOUS FUEL INJECTOR
	1193387	003084647	Granted	Italy	7/27/2005	9/27/2000	GASEOUS FUEL INJECTOR
	1193387	003084647	Granted	Great Britain	7/27/2005	9/27/2000	GASEOUS FUEL INJECTOR
	1193387	003084647	Granted	France	7/27/2005	9/27/2000	GASEOUS FUEL INJECTOR
	1193387	003084647	Granted	Spain	7/27/2005	9/27/2000	GASEOUS FUEL INJECTOR
	60021578.4	003084647	Granted	Germany	7/27/2005	9/27/2000	GASEOUS FUEL INJECTOR
	1193387	003084647	Granted	Belgium	7/27/2005	9/27/2000	GASEOUS FUEL INJECTOR
	HK1047155	2107248.3	Granted	Hong Kong		9/27/2000	GASEOUS FUEL INJECTOR
	1193387	00308464.7	Granted	European Patent Convention	7/27/2005	9/27/2000	GASEOUS FUEL INJECTOR
	1306952	00130695.2	Granted	China		10/20/2000	GASEOUS FUEL INJECTION
	6,161,783	09/397,726	Granted	United States	12/19/2000	9/17/1999	GASEOUS FUEL INJECTOR
F	6,726,892	10/076,026	Granted	United States	4/27/2004	2/12/2002	ADVANCED ALUMINUM ALLOYS FOR HYDROGEN STORAGE
ATE	6,634,321	09/738,276	Granted	United States	10/21/2003	12/14/2000	SYSTEM AND METHOD FOR STORING HYDROGEN
NT							
	Patent No.	Application No.	Status Description	Country Description	Granted	Filed	Title
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	8,517,206	12/468,736	Granted	United States	8/27/2013	5/19/2009	HIGH PRESSURE STORAGE DEVICE AND METHOD (USA)
I		2344/KOLNP/ 2008	Pending	Z		12/21/2006	SAFETY WARNING AND SHUTDOWN DEVICE AND METHOD FOR HYDROGEN STORAGE CONTAINERS (INDIA)
		06848046.6	Pending	EP		12/21/2006	SAFETY WARNING AND SHUTDOWN DEVICE AND METHOD FOR HYDROGEN STORAGE CONTAINERS (EUROPE)
1	ZI200680048255.9 101365825	2006- 80048255.9	Granted	CN	02/11/2009	12/21/2006	SAFETY WARNING AND SHUTDOWN DEVICE AND METHOD FOR HYDROGEN STORAGE CONTAINERS (CHINA)
	7,868,775	11/614,936	Granted	United States	1/11/2011	12/21/2006	SAFETY WARNING & SHUTDOWN DEVICE AND METHOD FOR HYDROGEN STORAGE CONTAINERS (USA)
	4607093	2006-502920	Granted	JP	01/05/2011	1/21/2004	TRANSPORTABLE HYDROGEN REFUELING STATION (JAPAN)
	2,513,745	2,513,745	Granted	CA	02/14/2012	1/21/2004	TRANSPORTABLE HYDROGEN REFUELING STATION (CANADA)
	8,578,958	13/444,397	Granted	United States	11/12/2013	4/11/2012	LEAK MITIGATION FOR PRESSURIZED BI- DIRECTIONAL SYSTEMS (USA) (continuation of 8,215,331)
	8,215,331	12/618,606	Granted	United States	7/10/2012	11/13/2009	LEAK MITIGATION FOR PRESSURIZED BI- DIRECTIONAL SYSTEMS (USA)
I		10830798.4	Pending	EP		9/19/2012	INTEGRITY PROTECTION FOR PRESSURIZED BI-DIRECTIONAL SYSTEMS
PAT	8,322,357	12/618,651	Granted	United States	12/4/2012	11/13/2009	INTEGRITY PROTECTION FOR PRESSURIZED BI-DIRECTIONAL SYSTEMS
ENT	8,232,750	12/712,877	Granted	United States	7/31/2012	2/25/2010	BROAD TURNDOWN RATIO TRACTION DRIVE (USA)
	Patent No.	Application No.	Status Description	Country Description	Granted	Filed	Title
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QUANTUM TECHNOLOGIES - PATENT PORTFOLIO AS OF JULY 12, 2016	IO AS OF JUI	LY 12, 2016				
Title	Filed	Granted	Country Description	Status Description	Application No.	Patent No.
HIGH PRESSURE STORAGE DEVICE AND METHOD (EU)	3/28/2012		EP	Pending	10778155.1	ENT
ORBITAL DEVICE WITH STOWABLE MOUNT (PCT)	2/3/2011	11/19/2013	United States	Granted	12/931,600	8,584,573
Breather Layer for Exhausting Permeate From Pressure Vessels	9/10/2013	12/8/2015	United States	Granted	13/979,531	9,205,373
Breather Layer for Exhausting Permeate From Pressure Vessels	11/18/2015		United States	Pending	14/941,367	
FISHTAIL PACKAGING AND COOLING (USA)	10/31/2012		United States	Published	13/664,774	
COMBINATION CHARGER AND MOTIVE POWER DEVICE (USA)	10/31/2012	9/16/2014	United States	Granted	13/665,070	8,836,289
COMBINATION CHARGER AND MOTIVE POWER DEVICE (USA) (continuation of 8,836,289)	5/23/2014	02/23/2016	United States	Granted	14/285,639	9,270,217
Combination Charger and Motive Power Device	12/28/2011		China	Pending	20118007628 2	
Combination Charger and Motive Power Device (continuation)	12/28/2011		China	Pending		
Concentric Shells for compressed gas storage	12/14/2012	01/12/2016	United States	Granted	13/714,700	9,234,625
Concentric Shells for compressed gas storage (continuation)	12/4/2015		United States	Pending	14/960,224	
Adapterless closure assembly	6/25/2013	11/11/2014	United States	Granted	13/926,219	8,881,932
Non-slip fuel tank bracket	10/4/2013		United States	Pending	14/046,601	
Enhanced Compliance Verification System	9/4/2015		United States	Published	14/845,869	

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QUANTUM TECHNOLOGIES - PATENT PORTFOLIO AS OF JULY 12, 2016	IO AS OF JUL	.Y 12, 2016				
Title	Filed	Granted	Country Description	Status Description	Application No.	Patent No.
Enhanced Compliance Verification System	5/21/2015		РСТ	Pending	PCT/US2015/ 032065 (WO2015/179 705)	PATENT
Tanks Forming Rack Superstructure	5/15/2014		United States	Expired	61/994,008	
Tanks Forming Rack Superstructure	11/11/2015		United States	Pending	14/938,795	
Tanks Forming Rack Superstructure	05/14/2015		РСТ	Pending	PCT/US2015/ 030906 (WO2015/175 844)	
Cooperating Tank Rack Superstructure	05/14/2015		РСТ	Pending	PCT/US2015/ 030904 (WO2015/175 842)	
Aerodynamic and Adjustable Efficient Back of Cab Fuel Tank Housing	06/11/2015		РСТ	Pending	PCT/US2015/ 035421 (WO2015/191 918)	
Composite Pressure Tank Boss Mounting with Pressure Relief	7/28/2014		United States	Pending	14/444,958	
Composite Pressure Tank Boss Mounting with Pressure Relief)) 1	-	PCT/US2015/ 041410	
	C1/17/1		<u>с</u>	rubiisried	(WO2016/018 679)	
Composite Pressure Tank Identification and Tracking	10/24/2014		United States	Allowed	14/523,128	
Composite Pressure Tank Identification and Tracking	10/13/2015		РСТ	Pending	PCT/US2015/ 055395 (WO2016/064 626)	

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GUANTUM TECHNOLOGIES - PATENT PORTFOLIO AS OF JULY 12, 2016 Title Filed Granted Damage Indicator for a Composite Pressure Tank 8/5/2014 Granted Damage Indicator for a Composite Pressure Tank 8/5/2014 Granted Cooling Systems and Associated Methods 5/13/2016 5/13/2016	LIO AS OF JUI Filed 8/5/2014 7/6/2015 5/13/2016	LY 12, 2016 Granted	Country Description US PCT United States	Status Description Pending Pending.	Application No. 14/452,434 PCT/US2015/ 039257 (WO2016/007 437) 15/154,305	Patent No.
Cooling Systems and Associated Methods	5/13/2016		United States	Pending	15/154,305	
Cooling Systems and Associated Methods	5/14/2015		United States	Provisional	62/161,830	
Composite Pressure Vessel Having Internal Load Support	11/24/2015		SN	Provisional	62/259,940	
Composite Vessel Fire Protection System	11/24/2015		SN	Provisional	62/258,978	
Seam Seal and Removable Seal System	9/23/2005	4/27/2012	Japan	Granted	2007-533647	4979582