Electronic Version v07 Stylesheet Version v02

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT OF ASSIGNOR'S INTEREST

CONVEYING PARTY DATA

Name	Execution Date		
Bombardier Motor Corporation of America	2003-12-18		

RECEIVING PARTY DATA

Name	Street Address	Internal Address	City	State/Country	Postal Code
Bombardier	1000 de La				
Recrreational Products	Gauchetière Street		Montreal	CANADA	H3B 4W5
Inc.	West , Suite 2100				

PROPERTY NUMBERS Total: 50

Property Type	Number
Patent Number	6238256
Patent Number	6244914
Patent Number	6253737
Patent Number	6257940
Patent Number	6267632
Patent Number	6267634
Patent Number	6270385
Patent Number	6273768
Patent Number	6279499
Patent Number	6283095
Patent Number	6283107
Patent Number	6287162
Patent Number	6293842
Patent Number	6295972
Patent Number	6298822
Patent Number	6299493
Patent Number	6303860

800011524 PATENT REEL: 014532 FRAME: 0204

JP \$40.00 62382

Patent Number	6305994
Patent Number	6308688
Patent Number	6314939
Patent Number	6321592
Patent Number	6322405
Patent Number	6322406
Patent Number	6332422
Patent Number	6339271
Patent Number	6350165
Patent Number	6350166
Patent Number	6357416
Patent Number	6358109
Patent Number	6360161
Patent Number	6363875
Patent Number	6371820
Patent Number	6379200
Patent Number	6383042
Patent Number	6384332
Patent Number	6386171
Patent Number	6390033
Patent Number	6394861
Patent Number	6401696
Patent Number	6405714
Patent Number	6406344
Patent Number	6422207
Patent Number	6422836
Patent Number	6428369
Patent Number	6431930
Patent Number	6435146
Patent Number	6435159
Patent Number	6435923
Patent Number	6457463
Patent Number	6458003

CORRESPONDENCE DATA

FAX NUMBER: 450-461-7833

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

When the customer number has been provided, the Office of Public Records will obtain the correspondence data from the

official record on file at the USPTO.

CUSTOMER NUMBER: 028735

NAME OF PERSON SIGNING: Jonathan Cutler

2004-04-27

Total Attachments: 25 source=BMCA1.tif source=BMCA2.tif source=BMCA3.tif source=BMCA4.tif source=BMCA5.tif source=BMCA6.tif source=BMCA7.tif source=BMCA8.tif source=BMCA9.tif source=BMCA10.tif source=BMCA11.tif source=BMCA12.tif source=BMCA13.tif source=BMCA14.tif source=BMCA15.tif source=BMCA16.tif source=BMCA17.tif

source=BMCA18.tif source=BMCA20.tif source=BMCA21.tif source=BMCA22.tif source=BMCA23.tif source=BMCA24.tif source=BMCA24.tif

DATE SIGNED:

PATENT

REEL: 014532 FRAME: 0206

PATENT ASSIGNMENT

This PATENT ASSIGNMENT THIS (the "Assignment") dated as of December 18, 2003 (the "Effective Date") is by and between Bombardier Motor Corporation of America, a corporation incorporated under the Laws of Delaware with its registered office at 6545 U.S. 1, Grant, Florida 32949 ("Assignor"), and Bombardier Recreational Products Inc., a corporation incorporated under the Laws of Canada, with its registered office at 1000 de La Gauchetière West, Suite 2100, Montréal, Québec H3B 4W5 ("Assignee").

WHEREAS, Assignor is the owner of certain Patents (as defined below);

WHEREAS, pursuant to the Patent and Trademark Purchase Agreement dated as of the Effective Date between Assignor and Assignee (the "Patent and Trademark Purchase Agreement"), Assignor has sold to Assignee, and Assignee has purchased from Assignor, certain patents and industrial designs and applications therefor as set forth in Appendix A attached hereto and all re-examinations, reissues, divisions, renewals, extensions, provisionals, continuations and continuations-in-part thereof (the "Patents");

WHEREAS, pursuant to the Patent and Trademark Purchase Agreement, Assignor and Assignee wish to enter into this Assignment to confirm the assignment from Assignor to Assignee of all of Assignor's rights to the Patents; and

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor assigns to Assignee all rights, title and interests in and to the Patents, and all letters patent which have been or may be granted thereon, together with the right to sue and recover damages for future or past infringements of the Patents and to fully and entirely stand in the place of Assignor in all matters related thereto.

Assignor hereby requests the Commissioner of Patents and Trademarks or such other corresponding responsible authority (the "Commissioner") to record this Assignment to Assignee. Assignor hereby further requests the Commissioner to issue any and all letters patent or derived from the Patent to Assignee as assignee of the entire interest.

This Agreement shall be governed by, and any dispute, disagreement, controversy or claim arising out of or in connection with this Agreement, including any question regarding its negotiation, existence, validity, interpretation, performance, breach or termination, shall be resolved in accordance with, the Laws of the Province of Quebec (to the exclusion of its conflict of law rules) and the Laws of Canada applicable therein.

This Assignment may be executed in counterparts, each of which shall be an original and all of which when taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the Parties have executed, made and entered into this Assignment under seal as of the date first set forth above.

	ASSIGNOR:
	BOMBARDIER MOTOR CORPORATION OF AMERICA
	- 1 B 11
	Name: Payman OFFIGORT
	Title: TREASURIX.
	By: XMillson
	Name: Gennifa millson
	Title: Secretary
City of Montreal ,	1
Raymond Bachant and Jennifer M	ASSIGNEE: BOMBARDIER RECREATIONAL PRODUCTS INC. Discrete President in personally appeared known, and known to me assignment, and acknowledged the signing of same ASSIGNEE: BOMBARDIER RECREATIONAL PRODUCTS INC.
City of Montreal ,	·
Jacques Levesque to me personally k	nown, and known to me to be the person who signed the signing of same as his free act and deed.
X 0 0 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	My commission expires For LIFE
Notary Public	T

PATENT

REEL: 014532 FRAME: 0208

APPENDIX A

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
Canada	Filed	2,348,980		05/28/2001		Personal watercraft (LRV)
Europe	Granted	84307203,4	141595	19-10-84	11-05-98	
Europe	Granted	93905298,1	629264	04-03-93	24-07-96	
Europe	Granted	93905299,9	629265	04-03-93	04-06-97	
Europe	Granted	93905295,7	630422	04-03-93	27-12-96	
Europe	Granted	96101218,4	725215	04-03-93	05-08-98	
Europe	Granted	96109438	733798	04-03-93	07-06-00	
Europe	Granted	EP96305243.6	756077	07/17/1996	09/19/2001	Electronic Control Circuit for an Internal Combustion Engine
Europe	Granted	96305246.9	756082	07/17/1996	01/15/2003	Improved Time Delay Ignition Circuit for an Internal Combust
Europe	Granted	95924243,9	764254	14-06-95	02-09-98	
Europe	Granted	96890176,9	780591	27-11-96	10-05-00	
Europe	Granted	96890177,7	780593	27-11-96	05-04-00	
Europe	Granted	96914114,2	823017	24-04-96	11-08-99	
Europe	Granted	96912032,8	823018	23-04-96	22-03-00	
Europe	Granted	95912036,9	823019	24-04-96	11-08-99	
Europe	Granted	96923888.0	840849	06/21/1996	09/15/1999	Process for Controlling the Ignition Point in internal Comb
Europe	Granted	97931779.9	910888	07/04/1997	10/02/2002	A Method of Operating a Generator and a Circuit for Carrying
Europe	Granted	00112378.5	1035309	06/21/1996	01/16/2002	Method for Operating an Internal Combustion Engine
Europe	Granted	98955495.1	1117930	10/20/1998	03/05/2003	Method for Electronically Trimming an Injector
Europe	Granted	01998733.8	1346152	11/28/2001	09/24/2003	Cold Start Strategy For Direct Injected Engines
Europe	Granted	96300291.0	736686	01/16/1996	03/22/2000	Fuel Injection Pump Control
Europe	Granted	96300838.8	740070	02/07/1996	12/11/2002	Method and Arrangement for Assembling Fuel Injection Nozzles
Europe	Granted	96305312,9	756075	19-07-96	20-09-00	
Europe	Granted	96305312.9	756075	07/19/1996	09/20/2000	Fuel Injected Internal Combustion Engine with Improved Combu
Europe	Granted	96305221.2	756292	07/17/1996	10/31/2001	Magnetic Gap Construction
Europe	Granted	00100483.7	992676	07/17/1996	10/02/2002	Method of Controlling the Magnetic Gap Length And the Initia
Europe	Filed	1968490,1		01-09-05		
Europe	Filed	97916099,1		19-03-97		
Europe	Filed	97934159,1		09-07-97		***************************************
Europe	Filed	00903347.3		01/18/2000		Methods and Apparatus for Controlling Engine Operation
Europe	Filed	00917957.3	·	03/13/2000		Fuel Injection for Combustion Engines and Method For Making
Europe	Filed	00956307.3		07/26/2000		Device for Delivering and/or Spraying Flowable Media especia
Europe	Filed	01933212.1		05/08/2001		Nonadjustable Throttle Linkage and Internal Combustion Engin
Europe	Filed	01953484.1		07/16/2001		Multi-Fonction Valve Having a Movable Seat and Needle
Europe	Filed	01968490.1		04/22/2003		An Engine Olling System And An Oil System Distribution Manif
Europ <u>e</u>	Filed	01970635.7		09/05/2001		Method And Apparatus For Controlling Ignition During Engine

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
Europe	Filed	01986034.5		11/28/2001		System and Method for Controlling An Internal Combustion Eng
Europe	Filed	01997052.6		11/21/2001		Fuel Vapor Separator
Ешгоре	Filed	01992000.8		11/01/2001		Diagnostic System And Method to Temporarily Adjust Fuel Quan
Europe	Filed	01994099.8	<u> </u>	11/16/2001		Air Intake Sifencer
Europe	Filed	01995162.3		11/21/2001		Vent Control System
Europe	Filed	01998726,2		12/03/2001		Reciprocating Fluid Pump Employing Reversing Polarity Motor
Europe	Filed	01998727.0		11/28/2001		Method And Apparatus For Identifying Parameters Of An Engine
Europe	Filed	03008021.2		04/11/2003		Outboard Engine Cowling
Europe	Filed	96305220.4		07/17/1996		Combined Pressure Surge Fuel Pump and Nozzle Assembly
Europe	Filed	97948825.1		10/28/1997		Ignition Device
Europe	Filed	98937156.2		07/28/1999		Fuel injection update system
Europe	Filed	99951906.9		10/13/1999		Start-Assist Circuit
Europe	Filed	01932936.6		05/03/2001		Fuel Injector Coefficient Installation
Europe	Filed	01983244.3		05/11/2001		Direct Injection Two Stroke Engine Combustion Mapping
Europe	Filed	96305244.4		07/17/1996		Method of Controlling the Magnetic Gap Length And the Initia
Еигоре	Filed	97912868.3		10/17/1997		Idle Control for Internal Combustion Engine
Europe	Filed	97934000.7		06/20/1997		Method of operating a fuel injected engine
Europe	Filed	98931237.6		06/22/1998		Fuel Injected Rope-Start Engine without Battery
Europe	Filed	98941007.1		08/20/1998		Capacitive discharge ignition system for an internal combust
Europe	Filed	98946137.1		09/22/1998		Solenoid with variable magnetic path
Europe	Filed	99126240.3		12/30/1999		Improved Time Delay Ignition Circuit for an Internal Combust
Europe	Filed	99906719.2		02/02/1999		Barrier divided combustion chamber for fuel injection two-st
France	Granted	91917579.4	591201	10/07/1991	04/17/1996	Fuel Injection Device for Internal Combustion Engine
France	Granted	93905298.1	629264	03/04/1993	07/24/1996	Reciprocating Piston Pump
France	Granted	93905295.7	630422	03/04/1993	12/27/1996	Fuel Injection Device working according to the solid energy
France	Granted		630442	1		
France	Granted	95111191.3	685646	10/07/1991	06/11/1997	Fuel Injection Device for Internal Combustion Engine
France	Granted	96101218.4	725215	03/04/1993	08/21/1996	Fuel Injection Device working according to the solid energy
France	Granted	96109438.0	733798	03/04/1993	06/07/2000	Fuel Injection Device working according to the solid energy
France	Granted	96108104.9	733799	10/07/1991	09/08/1999	Fuel Injection Device for Internal Combustion Engine
France	Granted	96305243.6	756077	07/17/1996	09/19/2001	Electronic Control Circuit for an Internal Combustion Engine
						Improved Time Delay Ignition Circuit for an Internal Combust
France	Granted	96305246.9	756082	07/17/1996	07/15/2003	Oil Burner
<u> France</u>	Granted	95924243.9	764254	06/14/1995		Process for Driving the Exciting coil of an
France	Granted	914114	823017	04/24/1996	08/11/1999	electromagnetica
France	Granted	96912032.8	823018	04/23/1996	03/22/2000	Fuel injection Device for Fuel Injected Engines
France	Granted	96912035.9	823019	04/24/1996	08/11/1999	Fuel Injection Device for Internal Combustion Engines

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
France	Granted	96923888.0	840849	06/21/1996	09/15/1999	Process for Controlling the Ignilion Point in Internal Comb
France	Granted	97931779.9	910888	07/04/1997		A Method of Operating a Generator and a Circuit for Carrying
France	Granted	00112378.5	1035309	06/21/1996	01/16/2002	Method for Operating an Internal Combustion Engine
France	Granted		1117930			
France	Granted	93905299.9	629265	03/04/1993	06/04/1997	Fuel Injection Device working according to the solid energy
France	Granted	96300291.0	735686	01/16/1996	03/22/2000	Fuel Injection Pump Control
France	Granted	96305312.9	756075	07/19/1996	09/20/2000	Fuel Injected Internal Combustion Engine with Improved Combu
France	Granted	96305221.2	756292	07/17/1996	10/31/2001	Magnetic Gap Construction
France	Granted	100483,7	992676	11-01-00	02-10-02	
France	Granted	9508380	9508380	07/11/1995	03/10/1997	Combined Fuel Injection Pump and Nozzle
France	Granted	9508381	9508381	07/11/1995	09/10/1998	Fuel injection Nozzle
France	Filed	98955495.1		10/20/1998		Method for Electronically Trimming an Injector
France	Filed	96300838.8		02/07/1996		Method and Arrangement for Assembling Fuel Injection Nozzles
Germany	Granted	tba	823017	04/09/1994	04/24/1996	Process for Driving the Exciting coil of an electromagnetica
Germany	Granted	<u>.</u>	19635248			
Germany	Granted	19845441.4	19845441	10/02/1998		Method for Electronically Trimming an Injector
Germany	Granted	596D4781.9	59604781	04/23/1996	04/27/2000	Fuel injection Device for Fuel Injected Engines
Germany	Granted	96890177,7	59604882,3	27-11-96	05-04-00	
Germany	Granted	96890176,9	59605183,2	27-11-96	10-05-00	
Germany	Granted	***	59708382	<u></u>		
Germany	Granted		59807422			
Germany	Granted	96305312,9	69610383,4	19-07-96	20-09-00	
Germany	Granted	40005010.7	69615298			
Germany	Granted	19635248.7	19635248.7	08/30/1996	05/23/2001	Liquid Gas Engine
Germany	Granted Granted	19643785.7 19643886.1	19643785.7 19643886.1	10/29/1996	04/22/1999 10/17/2002	Ignition Device Method to Operate an Internal Combustion Engine and Internal
Germany	Granted	19844163.0	19844163.0	09/25/1998	01/05/2000	ano internal
Commany	Gianted	13044103.0	13044100.0	U31ZUI 1890	01/03/2000	E allatada Baria fallata al Cardinalia
Germany	Granted	59107701.9	59107701.9	10/07/1991	04/17/1996	Fuel Injection Device for Internal Combustion Engine
Germany	Granted	59108749.9	59108749.9	10/07/1991	06/11/1997	Fuel Injection Device for Internal Combustion Engine
Germany	Granted	59109152.6	59109152.6	10/07/1991	09/08/1999	Fuel Injection Device for Internal Combustion Engine
Germany	Granted	93905298.1	59303326.4	03/04/1993	07/24/1996	Reciprocating Piston Pump
Germany	Granted	93905295.7	59304903.9	03/04/1993	12/27/1996	Fuel Injection Device working according to the solid energy
Germany	Granted	96101218.4	59308851.4	03/04/1993	08/21/1996	Fuel Injection Device working according to the solid energy
Germany	Granted	96109438.0	59310057.3	03/04/1993	06/07/2000	Fuel Injection Device working according to the solid energy
Germany	Granted	95924243.9	59503445.4	06/14/1995	09/02/1998	Oil Burner
Germany	Granted	5002721	59602721.4	04/24/1996	08/11/1999	Process for Driving the Exciting coil of an electromagnetica
Germany	Granted	596027	59602722.2	04/24/1996	09/16/1999	Fuel Injection Device for Internal Combustion Engines
Germany	Granted	96923888.0	59603096.7	06/21/1996	09/15/1999	Process for Controlling the Ignition Point in Internal Comb

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
Germany	Granted	00112378.5	59608610.5	06/21/1996	01/16/2002	Process for Controlling the Ignition Point in Internal Combu
Germany	Granted	96305246.9	696 25 754.8	07/17/1996	01/15/2003	Improved Time Delay Ignilion Circuit for an Internal Combust
Germany	Granted		9214254.0	10/21/1992	02/24/1994	Fuel Injection Device
Germany	Granted	84307203,4	P3471028.0	19-10-84	11-05-98	
Germany	Granted	4206817.7	P4206817.7	03/04/1992	02/24/1994	Fuel Injection Device working according to the solid energy
Germany	Granted	96305243,6	69615298,3	17-07-96	01-09-19	
Germany	Granted	100483,7	69624153,6	11-01-00	02-10-02	
Germany	Granted	93905299.9	59306679.0	03/04/1993	06/04/1997	Fuel Injection Device working according to the solid energy
Germany	Granted	96300291.0	69607230.0	01/16/1996	03/22/2000	Fuel Injection Pump Control
Germany	Granled	96305221.2	69616448.5	07/17/1996	10/31/2001	Magnetic Gap Construction
Germany	Filed	19515782		04/28/1995		Fuel Injection Device for Internal Combustion Engines
Germany	Filed	19515781.8		04/28/1995		
Germany	Filed	19627816.3		07/10/1996		
Germany	Filed	19937988.2		08/11/1999		Device for Delivering and/or Spraying Flowable Media especia
Germany	Filed	59708382,7		07/04/1997		A Method of Operating a Generator and a Circuit for Carrying
Germany	Filed	69515298.3		07/17/1996		Electronic Control Circuit for an Internal Combustion Engine
Germany	Filed	98955495.1		10/20/1998		Method for Electronically Trimming an Injector
Germany	Filed	19525095.8		07/10/1995		Fuel injection Nozzle
Germany	Filed	19525097.4		07/10/1995		Combined Fuel Injection Pump and Nozzle
Germany	Filed	69625269.4		02/07/1996		Method and Arrangement for Assembling Fuel Injection Nozzles
Great Britain	Granted	91917579.4 917579	591201	10/07/1991	04/17/1995	Fuel Injection Device for Internal Combustion Engine
Great Britain	Granted	93905298.1	629264	03/04/1993	07/24/1996	Reciprocating Piston Pump
Great Britain	Granted	93905295.7	630422	03/04/1993	12/27/1996	Fuel Injection Device working according to the solid energy
Great Britain	Granted		630442			
Great Britain	Granted	95111191.3	685646	10/07/1991	06/11/1997	Fuel Injection Device for Internal Combustion Engine
Great Britain	Granted	96101218.4	725215	03/04/1993	08/21/1996	Fuel Injection Device working according to the solid energy
Great Britain	Granted	96109438.0	733798	03/04/1993	06/07/2000	Fuel Injection Device working according to the solid energy
Great Britain	Granted	96108104.9	733799	10/07/1991	09/08/1999	Fuel Injection Device for Internal Combustion Engine
Great Britain	Granted	96305243.6	756077	07/17/1996	09/19/2001	Electronic Control Circuit for an Internal Combustion Engine
Great Britain	Granted	96305246.9	756082	07/17/1996	01/15/2003	Improved Time Delay Ignition Circuit for an Internal Combust
Great Britain	Granted	96305221,2	756292	17-07-96	01-10-31	
Great Britain	Granted	95924243.9	764254	06/14/1995	09/02/1998	Oil Burner
Great Britain	Granted	96890176,9	780591	27-11-96	10-05-00	
Great Britain	Granted	96890177,7	780593	27-11-96	05-04-00	

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
Great Britain	Granted	914114	823017	04/24/1996	08/11/1999	Process for Driving the Exciting coil of an electromagnetica
Great Britain	Granted	96912032.8	823018	04/23/1996	03/22/2000	Fuel injection Device for Fuel Injected Engines
Great Britain	Granted	96912036.9	823019	04/24/1996	08/11/1999	Fuel Injection Device for Internal Combustion Engines
Great Britain	Granted	96923888.0	840849	06/21/1996	09/15/1999	Process for Controlling the Ignition Point in Internal Comb
Great Britain	Granted	97931779.9	910888	07/04/1997		A Method of Operating a Generator and a Circuit for Carrying
Great Britain	Granted	100483,7	992676	11-01-00	02-10-02	
Great Britain	Granted	00112378.5	1035309	06/21/1996	01/16/2002	Method for Operating an Internal Combustion Engine
Great Britain	Granted		1117930			
Great Britain	Granted	8622968,9	2187816	24-09-86	18-04-90	
Great Britain	Granted	93905299.9	629265	03/04/1993	06/04/1997	Fuel Injection Device working according to the solid energy
Great Britain	Granted	96300291.0	736686	01/16/1996	03/22/2000	Fuel Injection Pump Control
Great Britain	Granted	96305312.9	756075	07/19/1996	09/20/2000	Fuel Injected Internal Combustion Engine with Improved Combu
Great Britain	Granted	98955495,1	1117930	20-10-98	03-03-05	
Great Britain	Granted	9510499.8	2291471	05/24/1995	02/25/1998	Fuel injection Nozzle
Great Britain	Granted	9512656.1	2291480	06/21/1995	03/18/1998	Combined Fuel Injection Pump and Nozzle
Great Britain	Filed	98955495.1	T.	10/20/1998		Method for Electronically Trimming an Injector
Great Britain	Filed	96300838.8		02/07/1996		Method and Arrangement for Assembling Fuel Injection Nozzlas
Italy	Granted	84307203,4	141595	19-10-84	11-05-98	
Italy	Granted	91917579.4 917579	591201	10/07/1991	04/17/1996	Fuel Injection Device for Internal Combustion Engine
Italy	Granted	93905298.1	629264	03/04/1993	07/24/1996	Reciprocating Piston Pump
Italy Italy	Granted Granted	93905295.7	630422 630442	03/04/1993	12/27/1996	Fuel Injection Device working according to the solid energy
italy	Granted	95111191.3	685646	10/07/1991	06/11/1997	Fuel Injection Device for Internal Combustion Engine
Italy	Granted	96101218.4	725215	03/04/1993	08/21/1996	Fuel Injection Device working according to the solid energy
Italy	Granted	96109438.0	733798	03/04/1993	06/07/2000	Fuel Injection Device working according to the solid energy
Italy	Granted	96108104.9	733799	10/07/1991	09/08/1999	Fuel Injection Device for Internal Combustion Engine
Italy	Granted	96305312,9	756075	19-07-96	20-09-00	
Italy	Granted	96305243.6	756077	07/17/1996	09/19/2001	Electronic Control Circuit for an Internal Combustion Engine
Italy	Granted	96305246.9	756082	07/17/1996	01/15/2003	Improved Time Delay Ignition Circuit for an Internal Combust
Italy	Granted	95924243.9	764254	06/14/1995	09/02/1998	Oil Burner
Italy	Granted	96890176,9	780591	27-11-96	10-05-00	
italy italy	Granted Granted	96890177,7 914114	780593 823017	27-11-96 04/24/1996	05-04-00 08/11/1999	Process for Driving the Exciting coil of an electromagnetica

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
Italy	Granted	96912032.8	823018	04/23/1996	03/22/2000	Fuel injection Device for Fuel Injected Engines
Italy	Granted	96912036.9	823019	04/24/1996	08/11/1999	Fuel Injection Device for Internal Combustion Engines
Italy	Granted	96923888.0	840849	06/21/1996	. 09/15/1999	Process for Controlling the Ignition Point in Internal Combu
Italy	Granted	97931779.9	910888	07/04/1997	7	A Method of Operating a Generator and a Circuit for Carrying
Italy	Granted	00112378.5	1035309	06/21/1996	01/16/2002	Method for Operating an Internal Combustion Engine
Italy	Granted		1117930			
Italy	Granted	47854A/85	1181621	22-03-85	30-09-87	
Italy	Granted	48121A/85	1182229	27-05-85	30-09-87	
ilaly	Granted	48850A/85	118301B	02-12-85	05-10-87	
Italy	Granted	48851A/85	1183019	02-12-85	05-10-87	
Italy	Granted	48852A/85	1183020	02-12-85	05-10-87	
italy	Granted	48853A/85	1183021	02-12-85	05-10-87	
Italy	Granted	48856A/85	1183024	02-12-85	05-10-87	
Italy	Granted	48857A/85	1183025	02-12-85	05-10-87	
Italy	Granted	48859A/85	1183027	02-12-85	05-10-87	
Italy	Granted	48861A/85	1183029	D2-12-85	05-10-87	
Italy	Granted	48175A/86	1191958	24-06-86	31-03-88	
Italy	Granted	48574A/8B	1224576	21-11-88	04-10-90	
Italy	Granted	48449A/88	1224769	13-10-88	18-10-90	
italy	Granted	48082A/88	1226781	15-06-88	07-02-91	
Italy	Granted	47851A/89	1231206	14-04-89	23-11-91	
Italy	Granted	48029A/89	1231266	01-06-89	28-11-91	
Italy	Granted	48387A/89	1232236	21-09-89	28-01-92	
Italy	Granted	48242A/89	1235285	27-07-89	26-06-92	, , , , , , , , , , , , , , , , , , ,
Italy	Granled	47655A/90	1239802	21-02-90	15-11-93	
Italy	Granted	47877A/90	1240092	23-04-90	27-11-93	
Italy	Granted	47933A/90	1240450	09-05-90	16-12-93 17-12-93	
Italy	Granted	47930A/90	1240823 1240824	09-05-90 09-05-90	17-12-93	
Italy	Granted	47931A/90	1240825	09-05-90	17-12-93	
Italy	Granted	47932A/90		09-05-90	17-12-93	
Italy	Granted	47934A/90	1240826 1240828	10-05-90	17-12-93	
Italy	Granted	47941A/90		10-05-90	17-12-93	
Italy	Granted	47942A/90	1240829 1240830	10-05-90	17-12-93	
Italy Italy	Granted	47943A/90 47946A/90	1240832	10-05-90	17-12-93	
Italy Italy	Granted	48272A/90	1244490	13-09-90	15-07-94	
Italy	Granted	91A000258	1244975	15-04-91	13-09-94	
Italy	Granted	91A000264	1244976	16-04-91	13-09-94	
Italy	Granted	92A000671	1262985	16-09-92	23-07-96	
Italy	Granted	92A000770	1263249	22-10-92	05-08-96	
(taly	Granted	92A000804	1263257	05-11-92	05-08-95	
Italy	Granted	95A000155	1278468	14-03-95	24-11-97	
Italy	Granted	95A000156	1278469	15-03-95	24-11-97	
Italy	Granted	95A000165	1278472	21-03-95	24-11-97	
Italy	Granted	RM95A000491	1278516	18-07-95	24-11-97	
Italy	Granted	93905299.9	629265	03/04/1993	06/04/1997	Fuel Injection Device working according to the solid energy
Italy	Granted	96300291.0	736686	01/16/1996	03/22/2000	Fuel Injection Pump Control
Italy	Granted	96305221,2	756292	07/17/1996	10/31/2001	Magnetic Gap Construction
Italy	Granted	100483,7	992676	11-01-00	02-10-02	
Italy	Granted	RM95A000490	1278515	07/18/1995	11/24/1997	Compined Fuel Injection Pump and Nozzle

Italy	ountry lame	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
Italy	,	Filed	1117930		10/20/1998		Method for Electronically Trimming an Injector
USA Granted 07/105,435 4,799,905 06/12/1987 01/24/1989 1/24/1989		Filed	98955495.1		10/20/1998		Method for Electronically Trimming an Injector
USA Granted 07/062.435 4,799.905 06/12/1987 07/24/1989 Water Jacketed Exhaust Rolled System Value Va	,	Filed	95300838.8		02/07/1996		Method and Arrangement for Assembling Fuel Injection Nozzies
USA Granted 122.221 4,820,212 11/18/1987 OM/11/1989 propulsion device bearing lubric system USA Granted 07/108,924 4,820,212 10/15/1987 04/11/1989 Marine propulsion device bearing lubric system USA Granted 136,737 4,829,961 12/21/1987 04/11/1989 Linkage for activating throttle and spart system USA Granted 785,507 5,256,091 11/06/1991 10/23/1993 Shift interiock system USA Granted 08/055,982 5,338,235 04/29/1993 08/16/1994 Motor Cover Latch USA Granted 08/295,811 5,469,828 02/09/1994 11/28/1995 Shift interiock system USA Granted 08/295,807 5,520,154 02/09/1994 11/28/1995 Shift interiock system USA Granted 507,746 5,661,865 07/25/1995 09/22/1997 Method of controlling the magnetic gap engines USA Granted 507,028 5,681,895 07/25/1995 10/28/1997 Method of controlling the magnetic gap in cipile for internal contr		Granted	07/062,435	4,799,905	06/12/1987	01/24/1989	Water Jacketed Exhaust Relief System for Marine Propulsion D
USA Granted 17/108,924 4,820,212 10/15/1987 04/11/1989 Marine propulsion device bearing lubric upsal USA Granted 178,737 4,829,961 12/21/1987 05/16/1989 Uiskage for activating throttle and spart USA Granted 07/525,914 5,037,338 05/19/1980 05/06/1991 Till Lamis Switch USA Granted 08/055,982 5,338,235 04/29/1993 08/16/1994 Motor Cover Latch Fuel Injection device according to the sensity at the correct propulsion USA Granted 08/055,982 5,338,235 04/29/1993 08/16/1994 Motor Cover Latch Fuel Injection device according to the sensity at the correct propulsion USA Granted 08/295,811 5,469,828 02/09/1884 05/28/1998 Fuel Injection device according to the sensity at the correct propulsion USA Granted 08/107,835 5,540,206 19/09/1993 07/30/1996 USA Granted 507,646 5,661,955 07/25/1995 09/02/1997 Usa Granted 507,646 5,661,955 07/25/1995 09/02/1997 Usa Granted 507,028 5,681,959 07/25/1995 09/02/1997 Usa Usa Granted 507,028 5,681,193 07/25/1995 10/08/1997 Usa Usa Usa Granted 08/70/1992 5,730,069 08/22/1995 10/08/1997 Usa Usa Granted 08/70/1992 5,730,069 08/22/1995 03/24/1998 USA Granted 08/670,553 5,730,069 08/22/1995 03/24/1998 USA Granted 08/670,884 5,752,656 07/10/1996 03/14/1998 04/							Lower gearcase shift mechanism for marine
USA Granted 07/108/9824 4,820,212 10/15/1887 04/11/1889 system USA Granted 136,737 4,829,961 12/21/1987 05/16/1989 Linkage for activating throttle and spari particles of control	٩	Granted	122,221	4,820,210	11/18/1987	04/11/1989	
USA Granted 07/525,914 5,037,338 05/18/1990 08/06/1991 Titt Limit Switch USA Granted 788,507 5,256,091 11/06/1993 Shift intendox system USA Granted 08/055,982 5,338,238 04/29/1993 Shift intendox system USA Granted 08/055,982 5,338,238 04/29/1993 Shift intendox system USA Granted 08/295,807 5,650,154 02/06/1884 567,1996 Fuel injection device according to the songines USA Granted 08/197,835 5,540,206 19/08/1993 07/30/1996 Fuel injection device or internal combination of state of	4	Granted		4,820,212			system
USA Granted 788,507 5,256,091 11/06/1991 10/23/1993 Shift interlock system USA Granted 08/055,982 5,338,236 04/29/1993 08/16/1994 Motor Cover Latch USA Granted 08/295,811 5,469,828 02/09/1994 11/28/1995 Fuel injection device according to the sengines USA Granted 08/295,807 5,520,154 02/09/1884 05/28/1996 Fuel injection device according to the sengines USA Granted 08/107,835 5,540,208 19/08/1993 07/30/1995 Fuel injection device according to the sengines USA Granted 507,646 5,661,895 07/25/1995 09/02/1997 Method of controlling the magnetic gap the initial USA Granted 507,028 5,681,895 07/25/1995 10/07/1997 Ventless Oil Reservoir USA Granted 09/506,880 5,687,050 25/07/1995 11/11/1997 Electronic control circuit for an internal engine USA Granted 08/610,553 5,738,051 03/06/1995 04/24/1998 Connecting Rod and Cra					1		
USA Granted 08/055,982 5,338,236 C4/28/1993 O8/16/1994 Motor Cover Latch					}		
USA Granted 08/295,811 5,469,828 02/09/1994 11/28/1995 Fuel injection device according to the sengine storage principle for internal contemporary storage					 		
USA Granted 08/295,811 5,469,828 02/09/1994 11/28/1995 energy storage principle for internal configuration of the energy storage principle for internal configuration devices for internal configuration of the energy storage principle for internal configuration of the energy storage principle for internal configuration devices for inte	Δ	Granted	08/055,982	5,338,236	04/29/1993	08/16/1994	Motor Cover Latch
USA Granted 08/295,807 5,520,154 02/09/1884 05/28/1996 engines energy storage principle for internal conduction of engines USA Granted D8/107,835 5,540,208 19/08/1993 07/30/1996 Fuel Injection device for internal combustion of engines USA Granted 507,846 5,661,895 07/25/1995 09/02/1997 Method of controlling the magnetic gap the initial USA Granted 507,028 5,681,193 07/25/1995 10/07/1997 Ventless Oil Reservoir USA Granted 507,028 5,681,193 07/25/1995 10/28/1997 Oual voltage regulated supply circuit for propulsio USA Granted 08/506,880 5,687,050 25/07/1995 11/11/1998 Reduced emission two-stroke engine angine USA Granted 08/670,553 5,732,976 04/28/1997 04/14/1998 Reduced emission two-stroke engine of engine oper USA Granted 08/671,884 5,752,656 07/10/1996 05/19/1998 Nozzle assembly and method of febric thereof USA Granted 08/672,884 5,752,656 <td< td=""><td>Α</td><td>Granted</td><td>08/295,811</td><td>5,469,828</td><td>02/09/1994</td><td>11/28/1995</td><td>Fuel injection device according to the solid-state energy storage principle for internal combustion engines</td></td<>	Α	Granted	08/295,811	5,469,828	02/09/1994	11/28/1995	Fuel injection device according to the solid-state energy storage principle for internal combustion engines
USA Granted 08/107,835 5,540,206 19/08/1993 07/30/1996 engines Method of controlling the magnetic gap the initial USA Granted 507,646 5,661,895 07/25/1995 09/02/1997 Ventless Oil Reservoir USA Granted 721,189 5,673,654 09/27/1996 10/07/1997 Ventless Oil Reservoir USA Granted 507,028 5,681,193 07/25/1995 10/28/1997 Dual voltage regulated supply circuit for propulsio USA Granted 08/506,880 5,687,050 25/07/1995 11/11/1997 Reduced emission two-stroke engine angine USA Granted 08/701592 5,730,099 08/22/1996 03/24/1998 Connecting Rod and Crankshaft Asser USA Granted 08/610,553 5,739,051 03/06/1996 04/14/1998 Four cycle marine engine USA Granted 08/677,884 5,752,656 07/10/1999 05/19/1998 Outboard Motor with improved jet propulate for propulation of the propulation	A	Granted	08/295,807	5,520,154	02/09/1884	05/28/1996	
USA Granted 507,646 5,661,895 07/25/1995 09/02/1997 the initia USA Granted 721,189 5,673,664 09/27/1996 10/07/1997 Venities Oil Reservoir USA Granted 507,028 5,681,193 07/25/1995 10/28/1997 Oual voitage regulated supply circuit for propulsio USA Granted 08/506,880 5,687,050 25/07/1995 11/11/1997 Electronic control circuit for an internal engine USA Granted 08/701592 5,730,099 08/22/1996 03/24/1998 Reduced emission two-stroke engine angine USA Granted 08/847,792 5,737,976 04/28/1997 04/14/1998 Connecting Rod and Crankshaft Asset USA Granted 08/677,884 5,752,656 07/10/1996 05/19/1998 Outcombined pressure surge fuel proper USA Granted 08/728,602 5,752,656 07/10/1996 05/19/1998 Outboard Motor with improved jet proper USA Granted 08/506,534 5,779,454 25/07/1995 07/14/1998 Fuel Injected Rope-Start Engine without	A	Granted	08/107,835	5,540,208	19/08/1993	07/30/1996	engines
USA Granted 507,028 5,681,193 07/25/1995 10/28/1997 propulsio Electronic control circuit for an internal engine USA Granted 08/506,880 5,687,050 25/07/1995 11/11/1997 Reduced emission two-stroke engine and engine of engine oper USA Granted 08/610,553 5,730,099 08/22/1996 03/24/1998 Of engine oper USA Granted 08/610,553 5,738,051 03/06/1996 04/14/1998 Four cycle marine engine USA Granted 08/677,884 5,752,656 07/10/1996 05/19/1998 Outboard Motor with improved jet propulsio USA Granted 08/506,534 5,779,454 25/07/1995 07/14/1998 Outboard Motor with improved jet propulsio USA Granted 934,679 5,816,221 09/22/1997 10/06/1998 Fuel Injected Rope-Start Engine without Start	Α	Granted	507,646	5,661,895	07/25/1995	09/02/1997	Method of controlling the magnetic gap lenght and the initia
USA Granted 507,028 5,681,193 07/25/1995 10/28/1997 propulsio USA Granted 08/506,880 5,687,050 25/07/1995 11/11/1997 Electronic control circuit for an internal engine engine engine USA Granted 08/701592 5,730,099 08/22/1996 03/24/1998 Connecting Rod and Crankshaft Asset of engine oper USA Granted 08/610,553 5,739,051 03/06/1996 04/14/1998 Four cycle marine engine USA Granted 08/677,884 5,752,656 07/10/1996 05/19/1998 Nozzle assembly and method of fabric thereof USA Granted 08/677,884 5,752,656 07/10/1996 05/19/1998 Dutboard Motor with improved jet propulsa USA Granted 08/506,534 5,779,454 25/07/1995 07/14/1998 Fuel Injected Rope-Start Engine witho USA Granted 934,879 5,816,221 09/22/1997 10/06/1998 Fuel Injected Rope-Start Engine witho USA Granted 941,493 5,836,794 09/30/1997 11/10/1998 Alternator with mec	A	Granted	721,189	5,673,664	09/27/1996	10/07/1997	Ventless Oil Reservoir
USA Granted 08/506,880 5,687,050 25/07/1995 11/11/1997 engine USA Granted 08/701592 5,730,099 08/22/1996 03/24/1998 Reduced emission two-stroke engine of engine oper USA Granted 08/847,792 5,737,976 04/28/1997 04/14/1998 Connecting Rod and Crankshaft Asset USA Granted 08/610,553 5,738,051 03/06/1996 04/14/1998 Four cycle marine engine USA Granted 08/677,884 5,752,656 07/10/1996 05/19/1998 Outboard Motor with improved jet properation of the properation o	A	Granted	507,028	5,681,193	07/25/1995	10/28/1997	Dual voltage regulated supply circuit for a marine propulsio
USA Granted 08/701592 5,730,099 08/22/1996 03/24/1998 of engine oper USA Granted 08/847,792 5,737,976 04/28/1997 04/14/1998 Connecting Rod and Crankshaft Asset USA Granted 08/610,553 5,738,051 03/06/1996 04/14/1998 Four cycle marine engine USA Granted 08/610,553 5,752,658 07/10/1996 05/19/1998 Nozzle assembly and method of fabric thereof USA Granted 08/728,602 5,752,863 10/10/1996 05/19/1998 Outboard Motor with improved jet proper to p	A	Granted	08/506,880	5,687,050	25/07/1995	11/11/1997	Electronic control circuit for an internal combustio engine
USA Granted 08/610,553 5,738,051 03/06/1996 04/14/1998 Four cycle marine engine USA Granted 08/677,884 5,752,656 07/10/1996 05/19/1998 Nozzle assembly and method of fabric thereof USA Granted 08/728,602 5,752,863 10/10/1996 05/19/1998 Outboard Motor with improved jet prop. Combined pressure surge fuel pump a assembly USA Granted 98/506,534 5,779,454 25/07/1995 07/14/1998 Combined pressure surge fuel pump a assembly USA Granted 934,879 5,816,221 09/22/1997 10/06/1998 Fuel Injected Rope-Start Engine withon USA Granted 941,586 5,834,874 09/30/1997 11/10/1998 Alternator with mechanically adjustable USA Granted 941,493 5,836,794 09/30/1997 11/10/1998 Retractable Trolling Motor Housing for USA Granted 5,846,103 10/09/1996 12/08/1998 Tractor Pump Jet USA Granted 08/766376 5,850,764 12-12-98 22-12-98 USA	Α	Granted	08/701592	5,730,099	08/22/1996	03/24/1998	
USA Granted 08/506,534 5,752,656 07/10/1996 05/19/1998 Outboard Motor with improved jet propulsion water infet system USA Granted 941,586 5,834,874 09/30/1997 11/10/1998 Alternator with mechanically adjustable USA Granted 941,493 5,836,794 09/30/1997 11/10/1998 Retractable Trolling Motor Housing for USA Granted 5,864,105 07/29/1997 12/08/1998 Marine jet propulsion water infet system USA Granted 08/766376 5,850,764 12-12-96 22-12-98 USA Granted 08/766437 5,860,892 12-12-96 19-01-99 Ventiess Fluid Reservoir USA Granted 966065 5,890,662 11/10/1997 04/06/1999 Solenoid with variable magnetic path Practical Granted 968/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 08/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 08/947,249 5,991,206 07/30/1997 10/05/1999 Four cycle marine engine Fusion water internal combined to the complex of the complex	A	Granted	08/847,792	5,737,976	04/28/1997	04/14/1998	
USA Granted 08/677,884 5,752,656 07/10/1996 05/19/1998 thereof USA Granted 08/728,602 5,752,863 10/10/1996 05/19/1998 Outboard Motor with improved jet propulation of the propulation of th	A	Granted	08/610,553	5,738,051	03/06/1996	04/14/1998	
USA Granted 08/506,534 5,779,454 25/07/1995 07/14/1998 assembly USA Granted 934,879 5,816,221 09/22/1997 10/06/1998 Fuel Injected Rope-Start Engine witho USA Granted 941,585 5,834,874 09/30/1997 11/10/1998 Alternator with mechanically adjustable USA Granted 941,493 5,836,794 09/30/1997 11/17/1998 Retractable Trolling Motor Housing for USA Granted 5,846,103 10/09/1996 12/08/1998 Tractor Pump Jet USA Granted 08/766376 5,850,764 12-12-96 22-12-98 USA Granted 08/766437 5,860,892 12-12-96 19-01-99 USA Granted 08/766437 5,860,892 12-12-96 19-01-99 USA Granted 966065 5,890,662 11/10/1997 03/16/1999 Ventless Fluid Reservoir USA Granted 966065 5,890,662 11/10/1997 04/06/1999 Solenoid with variable magnetic path Precise fuel flow measurement with measurement wi	Α	Granted	08/677,884	5,752,656	07/10/1996	05/19/1998	Nozzle assembly and method of fabrication thereof
USA Granted 08/506,534 5,779,454 25/07/1995 07/14/1998 assembly USA Granted 934,879 5,816,221 09/22/1997 10/06/1998 Fuel Injected Rope-Start Engine without Microscopy USA Granted 941,586 5,834,874 09/30/1997 11/10/1998 Alternator with mechanically adjustable USA Granted 941,493 5,836,794 09/30/1997 11/17/1998 Retractable Trolling Motor Housing for USA Granted 5,846,103 10/09/1996 12/08/1998 Tractor Pump Jet USA Granted 5,846,105 07/29/1997 12/08/1998 Marine jet propulsion water infet syster USA Granted 08/766376 5,850,764 12-12-96 22-12-98 USA Granted 08/766437 5,860,892 12-12-96 19-01-99 USA Granted 966065 5,890,662 11/10/1997 03/16/1999 Ventiless Fluid Reservoir USA Granted 5,895,844 05/29/1997 04/20/1999 Solenoid with variable magnetic path <	A	Granted	08/728,602	5,752,863	10/10/1996	05/19/1998	Outboard Motor with improved jet propulsion unit
USA Granted 934,879 5,816,221 09/22/1997 10/06/1998 Fuel Injected Rope-Start Engine without With Michael Start Engine without With Without With Michael Start Engine without With With With With With With With Wit	A	Granted	08/506.534	5.779.454	25/07/1995	07/14/1998	Combined pressure surge fuel pump and nozzle assembly
USA Granted 941,586 5,834,874 09/30/1997 11/10/1998 Alternator with mechanically adjustable USA Granted 941,493 5,836,794 09/30/1997 11/17/1998 Retractable Trolling Motor Housing for USA Granted 5,846,103 10/09/1996 12/08/1998 Tractor Pump Jet USA Granted 08/766376 5,850,764 12-12-96 22-12-98 USA Granted 08/766437 5,860,892 12-12-96 19-01-99 USA Granted 5,881,692 10/06/1997 03/16/1999 Ventiless Fluid Reservoir USA Granted 966065 5,890,662 11/10/1997 04/06/1999 Solenoid with variable magnetic path USA Granted 5,895,844 05/29/1997 04/20/1999 Four cycle marine engine USA Granted 08/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 5,911,206 07/30/1997 06/15/1999 Fuel injection update system USA		Granted	934.879	5,816,221	09/22/1997	10/06/1998	Fuel Injected Rope-Start Engine without Battery
USA Granted 941,493 5,836,794 09/30/1997 11/17/1998 Retractable Trolling Motor Housing for 12/08/1998 USA Granted 5,846,103 10/09/1996 12/08/1998 Tractor Pump Jet USA Granted 5,846,105 07/29/1997 12/08/1998 Marine jet propulsion water inlet system USA Granted 08/766376 5,850,764 12-12-96 22-12-98 USA Granted 08/766437 5,860,892 12-12-96 19-01-99 USA Granted 5,881,692 10/06/1997 03/16/1999 Ventiess Fluid Reservoir USA Granted 966065 5,890,662 11/10/1997 04/06/1999 Solenoid with variable magnetic path USA Granted 5,895,844 05/29/1997 04/20/1999 Four cycle marine engine USA Granted 08/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 5,911,206 07/30/1997 06/15/1999 Fuel injection update system USA Granted					09/30/1997	11/10/1998	Alternator with mechanically adjustable output
USA Granted 5,846,103 10/09/1996 12/08/1998 Tractor Pump Jet USA Granted 5,846,105 07/29/1997 12/08/1998 Marine jet propulsion water inlet system USA Granted 08/766376 5,850,764 12-12-96 22-12-98 USA Granted 08/766437 5,860,892 12-12-96 19-01-99 USA Granted 5,881,692 10/06/1997 03/16/1999 Ventiess Fluid Reservoir USA Granted 966065 5,890,662 11/10/1997 04/06/1999 Solenoid with variable magnetic path USA Granted 5,895,844 05/29/1997 04/20/1999 Four cycle marine engine USA Granted 08/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 5,911,206 07/30/1997 06/15/1999 Fuel injection update system USA Granted 08/819,947 5,960,766 18/03/1997 10/05/1999 Fuel injection update system					09/30/1997	11/17/1998	Retractable Trolling Motor Housing for Boat
USA Granted 5,846,105 07/29/1997 12/08/1998 Marine jet propulsion water infet system USA Granted 08/766376 5,850,764 12-12-96 22-12-98 USA Granted 08/766437 5,860,892 12-12-96 19-01-99 USA Granted 5,881,692 10/06/1997 03/16/1999 Ventiess Fluid Reservoir USA Granted 966065 5,890,662 11/10/1997 04/06/1999 Solenoid with variable magnetic path USA Granted 5,895,844 05/29/1997 04/20/1999 control va USA Granted 08/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 5,911,206 07/30/1997 06/15/1999 Fuel injection update system USA Granted 08/819,947 5,960,766 18/03/1997 10/05/1999 Fuel injection update system					10/09/1996	12/08/1998	Tractor Pump Jet
USA Granted 08/766376 5,850,764 12-12-96 22-12-98 USA Granted 08/766437 5,860,892 12-12-96 19-01-99 USA Granted 5,881,692 10/06/1997 03/16/1999 Ventiess Fluid Reservoir USA Granted 966065 5,890,662 11/10/1997 04/06/1999 Solenoid with variable magnetic path USA Granted 5,895,844 05/29/1997 04/20/1999 routrol va USA Granted 08/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 5,911,206 07/30/1997 06/15/1999 Fuel injection update system USA Granted 08/819,947 5,960,766 18/03/1997 10/05/1999 Fuel injection update system					07/29/1997	12/08/1998	Marine jet propulsion water inlet system
USA Granted 08/766437 5,860,892 12-12-96 19-01-99 USA Granted 5,881,692 10/06/1997 03/16/1999 Ventless Fluid Reservoir USA Granted 966065 5,890,662 11/10/1997 04/06/1999 Solenoid with variable magnetic path USA Granted 5,895,844 05/29/1997 04/20/1999 routrol va USA Granted 08/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 5,911,206 07/30/1997 06/15/1999 Fuel injection update system USA Granted 08/819,947 5,960,766 18/03/1997 10/05/1999 engine			08/766376	5,850,764	12-12-96	22-12-98	
USA Granted 5,881,692 10/06/1997 03/16/1999 Ventiess Fluid Reservoir USA Granted 966065 5,890,662 11/10/1997 04/06/1999 Solenoid with variable magnetic path USA Granted 5,895,844 05/29/1997 04/20/1999 Precise fuel flow measurement with m control va USA Granted 08/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 5,911,206 07/30/1997 06/15/1999 Fuel injection update system USA Granted 08/819,947 5,960,766 18/03/1997 10/05/1999 method of operating an internal combination of the control o		Granted	08/766437	5,860,892	12-12-96	19-01-99	
USA Granted 5,895,844 05/29/1997 04/20/1999 control va Precise fuel flow measurement with m control va USA Granted 08/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 5,911,206 07/30/1997 06/15/1999 Fuel injection update system USA Granted 08/819,947 5,960,766 18/03/1997 10/05/1999 method of operating an internal combine engine		Granted		5,881,692	10/06/1997	03/16/1999	
USA Granted 5,895,844 05/29/1997 04/20/1999 Precise fuel flow measurement with m control va USA Granted 08/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 5,911,206 07/30/1997 06/15/1999 Fuel injection update system USA Granted 08/819,947 5,960,766 18/03/1997 10/05/1999 Method of operating an internal combine engine			966065	5,890,662	11/10/1997	04/06/1999	
USA Granted 08/947,249 5,899,177 10/08/1997 05/04/1999 Four cycle marine engine USA Granted 5,911,206 07/30/1997 05/15/1999 Fuel injection update system USA Granted 08/819,947 5,960,766 18/03/1997 10/05/1999 engine		Granted		5,895,844	05/29/1997	04/20/1999	Precise fuel flow measurement with modified flui control va
USA Granted 5,911,206 07/30/1997 05/15/1999 Fuel injection update system USA Granted 08/819,947 5,960,766 18/03/1997 10/05/1999 engine		-	08/947,249			05/04/1999	Four cycle marine engine
USA Granted 08/819,947 5,960,766 18/03/1997 10/05/1999 engine Method of operating an internal combine engine							Fuel injection update system
		1				1	Method of operating an internal combustion
USA Granted 5,964,626 12/04/1998 10/12/1999 Tractor Pump Jet		Granted	08/819,947			<u> </u>	
	SA	Granted		5,964,626			Barrier divided combustion chamber for fuel

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Granted		5,975,058	10/13/1998	11/02/1999	Start-Assist circuit
USA	Granted		5,992,016	08/20/1997	11/30/1999	Method of controlling the magnetic gap lenght and the initia
USA	Granted	09/250,589	5,996,548	16/02/1999	12/07/1999	Method of operating an internal combustion engine
USA	Granted		5,996,734	03/11/1998	12/07/1999	Air intake silencer for a two-stroke engine
USA	Granted	08/737,353	6,004,127	01/11/1996	12/21/1999	Oil burner
USA	Granted		6.012,434	07/20/1998	01/11/2000	Fuel system vapor separator for an internal combustion engine
USA	Granted		6,015,365	01/28/1999	01/18/2000	Electronic gear shift assist circuitry
USA	Granted	08/945,706	6,024,071	23/12/1998	02/15/200D	Process for driving the exciting coil of an electromagnetically driven reciprocating piston pump
USA	Granted	08/879,526	6,026,792	06/20/1997	02/22/2000	Method of operating a fuel injected engine
USA	Granted		6,033,272	10/27/1998	03/07/2000	Marine jet drive system with debris cleanout feature
USA	Granted		6,034,525	11/25/1998	03/07/2000	Method and Apparatus for detecting rotational direction of a
USA	Granted		6,036,556	02/13/1998	03/14/2000	Outboard Motor with bleed for engine cooling jacket
USA	Granted		6.044,822	11/24/1998	04/04/2000	Programmed break-in mode for two-cycle engine
USA	Granted		6,066,941	07/10/1998	05/23/2000	Switching alternator system
USA	Granted		6,082,438	10/08/1997	07/04/2000	Method and system for the control of a vacuum valve of a vac
USA	Granted		6,115,666	11/23/1998	09/05/2000	Method and Apparatus for creating a profile of operating con
USA	Granted		6,116,022	07/03/1996	09/12/2000	Catalytic Reactor for Marine Application
USA	Granted	09/297,291	6,138,653	02/07/1999	10/31/2000	Ignition system and principle of operation
USA	Granted	09/265,072	6,146,219	03/09/1999	11/14/2000	Reverse propulsion and control means for water jet powered b
USA	Granted		6,148,902	10/08/1997	11/21/2000	Multiple die casting machines with single vacuum source
USA	Granted	08/952,704	6,158,409	03/19/1997	12/12/2000	Two-Stroke engine piston bowl configurations
USA	Granted	09/248,544	6,161,525	11/02/1999	12/19/2000	Liquid gas engine
USA	Granted	09/365,508	6,166,973	08/02/1999	12/26/2000	Memory device with multiple-bit data pre-fetch function
USA	Granted	09/201,363	6,167,875	11/30/1998	01/02/2001	Multiple spark capacitive discharge ignition system for an i
USA	Granted	09/419,143	6,168,485	10/15/1999	01/02/2001	Pump jet with double-walled stator housing for exhaust noise
USA	Granted	09/144,735	6,170,457	09/01/1998	01/09/2001	Fuel injection engine having fuel spray deflector
USA	Granted	09/263,799	6,170,463	03/05/1999	01/09/2001	Method and Apparatus for optimizing engine operation
USA	Granted	09/204,697	6,173,692	03/12/1998	01/16/2001	Time Delay Ignition Circuit for an Internal Combustion Engine
USA	Granted	08/676,907	6,188,561	08/07/1996	02/13/2001	Circuit for driving the excitation coil of an electromagnetically driven reciprocating pump
USA	Granted	09/406,582	6,190,218	09/27/1999	02/20/2001	Pump jet with redirected exhaust gas through stator vane for
USA	Granted	09/469,940	6,224,435	12/24/1999	05/01/2001	Inlet Structure for Water Jet Apparatus Mounted to Boat Hull
USA	Granted	09/472,715	6,224,436	12/24/1999	05/01/2001	Reverse Gate for Water Jet Apparatus
USA	Granted	09/539,755	6,224,437	03/31/2000	05/01/2001	Trolling Motor Mount Stabilizer
USA	Granted	09/524,365	6,227,919	03/14/2000	05/08/2001	Water Jet Propulsion Unit with Means for Providing Lateral T

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
UŞA	Granted	09/470,960	6,238,256	12/24/1999	05/29/2001	Arrangement for Mounting propulsion unit to boat hull
USA	Granted	09/472,714	6,244,914	12/24/1999	06/12/2001	Shift and Steering Control System for Water jet apparatus
USA	Granted	09/539,254	6,253,737	03/30/2000	07/03/2001	Direct Fuel Injection Using A Fuel Pump Driven By A Linear E
USA	Granted	09/195,386	6,257,940	06/19/1997	07/10/2001	Outboard Motor with Centralized Rigging
USA	Granted	1999000456161	6,267,632	12/07/1999	07/31/2001	Water jet propulsion apparatus with Inboard mounted power source
USA	Granted	09/390,880	6,267,634	09/07/1999	07/31/2001	Propeller Flare
USA	Granted	1999000391286	6,270,385	09/07/1999	08/07/2001	Pump jet rotor housingmodification for noise signature spectral control
USA	Granted	09/545,483	6,273,768	04/07/2000	08/14/2001	Water jet propulsion unit with counter-rotating impellers
USA	Granted	09/540,814	6,279,499	03/31/2000	08/28/2001	Rotational Jet-Drive Bow Thruster For a Marine Propulsion Sy
USA	Granted	09/464,188	6,283,095	12/16/1999	09/04/2001	Quick Start Fuel Injection Apparatus and Method
USA	Granted	09/251,584	6,283,107	02/17/1999	09/04/2001	Methods and Apparatus for Mesuring Atmospheric Pressure and
USA	Granted	09/469,594	6,287,162	12/24/1999	09/11/2001	Bearing Arrangement for Drive Shaft of Water Jet Apparatus
USA	Granted	09/615,178	6,293,842	07/13/2000	09/25/2001	Cantilever Jet Drive Package Having Mounting Adapter with Ex
USA	Granted	09/538,660	6,295.972	03/30/2000	10/02/2001	Fuel Delivery Using Multiple Assemblies Per Combustion Chamb
USA	Granted	2000000538660	6,295,972	03/30/2000	10/02/2001	Fuel delivery using multiple fluid delivery assemblies per combustion chamber
USA	Granted	09/539,253	6,298,822	03/30/2000	10/09/2001	Direct Fuel Injection Using Multiple Fluid Actuators Per Noz
USA	Granted	09/539,582	6,299,493	03/31/2000	10/09/2001	Steering Control Method and Apparatus for Dual Electric Moto
USA	Granted	09/450,602	6,303,850	11/30/1999	10/16/2001	Bladder Insert For Encapsulant Displacement
USA	Granted	09/540,682	6,305,994	03/31/2000	10/23/2001	Hull For Dual Electric Motor Propulsion System
USA	Granted	09/390,514	6,308,688	09/03/1999	10/30/2001	Start-Assist Circuit
USA	Granted	09/266,572	6,314,939	03/11/1999	11/13/2001	Method and Apparatus for Controlling Engine Operation
USA	Granted	09/193,100	6,321,592	06/16/1997	11/27/2001	Method and Apparatus For Calibrating a Position Sensor Used
USA	Granted	09/540,090	6,322,405	03/31/2000	11/27/2001	Reversing Control for Trolling Motor Propulsion System
USA	Granted	09/540,695	6,322,406	03/31/2000	11/27/2001	Dual Electric Motor Marine Propulsion System
USA	Granted	09/607,951	6,332,422	06/30/2000	12/25/2001	Hull modification to minimize porpoising of a boat
USA	Granted	2000000607951	6,332,422	06/30/2000	12/25/2001	Hull modification to minimize porpoising of a boat.
USA	Granted	09/468,582	6,339,271	12/21/1999	01/15/2002	Molded Flywheel Magnet Cage
USA	Granted	09/598,207	6,350,165	06/21/2000	02/26/2002	Marine Stem Drive Two-Speed
USA	Granted	09/571,752	6,350,166	05/15/2000	02/26/2002	Outboard engine with resonance-avoiding exhaust housing
USA	Granted	09/011,1079	6,357,416	18/08/2000	03/19/2002	Process for controlling the ignition point in internal combustion engines
USA	Granted	09/456,586	6,358,109	12/08/1999	03/19/2002	Air Cooled Marine Engine Exhaust
USA	Granted	09/566,000	6,360,161	05/04/2000	03/19/2002	Method And System For Fuel Injector Coefficient Installation
USA	Granted	09/540,819	6,363,875	03/31/2000	04/02/2002	Method and Apparatus For Trimming a Dual Electric Motor Mari
USA	Granted	09/574,787	6,371,820	05/19/2000	04/16/2002	Integral-Piece Gimbal Ring And Steering Assembly for Marine

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Granted	09/620,457	6,379,200	07/21/2000	04/30/2002	Watercraft Fuel Supply Apparatus and Method
USA	Granted	09/547,009	6,383,042	04/11/2000	D5/07/2002	Axial Twist Propeller Hub
USA	Granted	09/604,983	6,384,332	06/28/2000	05/07/2002	Bladder Insert For Encapsulant Displacement
USA	Granted	09/689,375	6,386,171	10/12/2000	05/14/2002	Oil Delivery System with Oil Temperature Compensation Contro
USA	Granted	09/432,533	6,390,033	11/03/1999	05/21/2002	Oiling System
USA	Granted	09/689,953	6,394,861	10/12/2000	05/28/2002	Oil System and Housing with Periodic Oil Diversion
USA	Granted	08/945,976	6,401,696	05/06/1998	06/11/2002	Fuel injection device for internal combustion engines
USA	Granted	09/570,096	6,405,714	05/12/2000	06/18/2002	Method And Apparatus For Calibrating And Controlling Fuel In
USA	Granted	09/585,477	6,406,344	06/01/2000	06/18/2002	Marine Exhaust With Dual Cooling
USA	Granled	09/724,821	6,422,207	11/28/2000	07/23/2002	Fuel Vapor Separator
USA	Granted	09/540,818	6,422,836	03/31/2000	07/23/2002	Bi-Directionally Driven Reciprocating Fluid Pump
USA	Granted	2000000723983	6,428.369	11/28/2000	08/06/2002	Jet- propelled boat having through-hull housing for shaft penetration
USA	Granted	09/162,566	6,431,930	09/29/1998	08/13/2002	Electronic Control System for Boats
USA	Granted	09/694,186	6,435,146	10/23/2000	08/20/2002	An Engine Oiling Distribution System For Purging Air And Met
USA	Granted	09/567,575	6,435,159	05/10/2000	08/20/2002	Fuel Injected Internal Combustion Engine With Reduced Squish
USA	Granled	09/613,093	6.435.923	07/10/2000	08/20/2002	Two Speed Transmission with Reverse For a Watercraft
USA	Granted	09/723,513	6,457,463	11/28/2000	10/01/2002	Muti-Fuel Direct Injection Engine
USA	Granted	09/723,771	6,458,003	11/28/2000	10/01/2002	Dynamic Trim Of A Marine Propulsion System
USA	Granted	2000000724054	6,475,044	11/28/2000	11/05/2002	Vibration isolation for mounting water jet propulsion unit to hull
USA	Granted	09/927,713	6,482,055	08/10/2001	11/19/2002	Water Jet Propulsion Unit Having Linear Weed Grate Clean-Out
USA	Granted	2000000614186	6,491,554	07/11/2000	12/10/2002	Watercraft with steerable planing surface
USA	Granted	2000000621510	6,497,594	07/21/2000	12/24/2002	Removable marine gearcase plate
USA	Granted	2000000723862	6,532,932	11/28/2000	03/18/2003	System and method for controlling an internal combustion engine
USA	Granted	09/928,062	6,558,211	08/10/2001	05/06/2003	Low-Profile Steering Nozzle for Water Jet Propulsion System
USA	Granted	09/313,779	6,558,213	05/17/1999	05/06/2003	High Performance Engine Skeg
USA	Granted	10/054,034	6,583,355	01/22/2002	06/24/2003	Bladder Insert For Encapsulant Displacement
USA	Granted	10/063,691	6,585,545	05/08/2002	07/01/2003	Shielded Tilt-Trim Subsystem For Boats Using A Stern Drive S
USA	Granted	10/095,302	6,604,505	11/03/2002	08/12/2003	Method and apparatus for controlling the ignition point in internal combustion engines
USA	Granted	09/787,989	6,607,361	17/07/2001	08/19/2003	Pumping method and device
USA	Granted	09/806,061	6,615,128	23/03/2001	09/02/2003	Method for electronically trimming for an injection apparatus
USA	Granted	10/005,865	6,626,381	11/08/2001	09/30/2003	A Multi-Port Fuel Injection Nozzle and System and Method Inc
	Granted	2000000670730	6,644,250	09/27/2000	11/11/2003	Engine oiling system and an oil system distribution manifold, and method of use
USA			6.648,703	06/12/2002	11/18/2003	Convertible outboard motor tiller arm and motor incorporation same
USA	Granted	2002000171460 09/864,876	6,651,876	05/25/2001	11/25/2003	
USA	Granted	2002000319433	6,652,332	12/13/2002	11/25/2003	
USA	Granted	452,559	RE34,285	12/18/1989	06/15/1993	
USA	Granted Granted	08/644,404	RE36,451	05/01/1996	12/21/1999	Two-stroke internal combustion engine with improved air inta

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Granted	376,738	4,378,762	05/10/1982	04/05/1983	Two-stroke internal combustion engine and method of operation thereof
USA	Granted	1983000560904	4,565,534	12/14/1983	01/21/1986	Water pump location for marine propulsion device
USA	Granted	1983000558041	4,568,292	12/05/1983	02/04/1986	Hydraulic assistance device for use in steering system
USA	Granled	1985000750056	4,579,535	06/27/1985	04/01/1986	Steering mechanism
USA	Granted	1985000700550	4,594,970	02/11/1985	06/17/1986	Marine installation including fuel/oil mixing device
USA	Granted	1984000639949	4.599.979	08/09/1984	07/15/1986	Upper crankshaft bearing lubrication system for two cycle engine
USA	Granted	1984000635172	4,602,602	07/27/1984	07/29/1986	Control device interconnecting throttle valve, exhaust valve and spark timing linkages
U\$A	Granted	1984000574582	4,605,375	01/27/1984	08/12/1986	Trim and tilt control for marine propulsion devices
USA	Granted	1984000622718	4,609,028	06/20/1984	09/02/1986	Evaporative pattern assembly for use in sand casting
USA	Granted	1984000640025	4,620,607	08/09/1984	11/04/1986	Air silencer for an internal combustion engine
			1 11	06/27/1985	12/30/1986	Combined fluid pressure actuated fuel and oil pump
USA	Granted	1985000749474	4,632,144 4,642,058	05/06/1985	02/10/1987	Hydraulic system for marine propulsion devices
USA	Granted	1985000731159				Steering and tilting means for marine propulsion
USA	Granted	1985000698873	4,645,464	02/06/1985	02/24/1987	device
USA	Granted	1985000723310	4,650,428	04/15/1985	03/17/1987	Marine propulsion device with floating drive shaft
USA	Granted	1985000698874	4,654. 013	02/06/1985	03/31/1987	Steering means for marine propulsion device
USA	Granted	1985000731160	4,659,315	05/06/1985	04/21/1987	Hydraulic system for marine propulsion devices
USA	Granted	1984000685238	4,660,378	12/21/1984	04/28/1987	Exhaust system with side branch
USA	Granted	1985000715479	4,660,514	03/25/1985	04/28/1987	Mounting arrangement for marine propulsion
USA	Granted	1984000671902	4,666,410	11/16/1984	05/19/1987	device
USA	Granted	1985000739108	4,666,412	05/30/1985	05/19/1987	Marine engine mounting apparatus
USA	Granted	910325	4,687,450	09/22/1986	08/18/1987	Marine propulsion device exhaust system
USA	Granted	1985000752258	4,695,261	07/03/1985	09/22/1987	Marine propulsion engine voltage generator arrangement
UŞA	Granted	1986000802132	4,699,598	09/02/1986	10/13/1987	Marine propulsion device water supply system
USA	Granted	1985000737933	4,706,414	05/28/1985	11/17/1987	Apparatus for rotatably supporting a marine propeller in a vibrating media
USA	Granted	1987000004756	4,708,673	01/08/1987	11/24/1987	Outboard motor cowl assembly
USA	Granted	1985000773591	4,718,872	09/09/1985	01/12/1988	Automatic trim system
USA	Granted	1985000744482	4,722,705	06/13/1985	02/02/1988	Marine propulsion device with swing angle indication mechanism
USA	Granted	1985000727814	4,722,708	04/26/1985	02/02/1988	Manne propulsion device fuel distribution system
				09/22/1986	05/17/1988	Method and apparatus for determining the thickness of shim required for properly loading and positioning the bearing assembly of a marine propulsion drive shaft
USA	Granted	1986000910445	4,744,153		05/17/1988	Power steering system for marine propulsion device
USA	Granted	1987000028958	4,744,777	03/23/1987 12/15/1985	05/17/1988	Marine propulsion device power steering system
USA	Granted	1986000001825	4,749,374	08/29/1986	06/28/1988	Marine propulsion device
USA	Granted	901967	4,753,619 4,757,792	06/07/1985	07/19/1988	Internal combustion engine
USA	Granted	1985000742583		10/26/1987	08/23/1988	Internal combustion engine with compressed air collection system
USA	Granted	1987000112931	4,765,304	06/16/1987	10/18/1988	Reverse thrust propelle
USA	Granted	1987000063208	4,778,419		10/25/1988	Dual fuel injection system for two stroke internal combustion engine
USA	Granted Granted	1987000112472 1987000067702	4,779,581 4,781,166	10/26/1987 06/29/1987	11/01/1988	Voltage regulated magneto powered capacitve discharge ignition system

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Granted	1987000103507	4,786,263	10/01/1987	11/22/1988	Marine propulsion device power tilt and trim mechanism
USA	Granted	1987000065941	4,789,366	06/24/1987	12/05/1988	Marine proulsion device ball clutch transmission
USA	Granted	947106	4,792,315	12/29/1986	12/20/1988	Drive shaft assembly for outboard motor
USA	Granted	1987000058365	4,795,383	06/04/1986	D1/03/1989	Marine propulsion device low-speed exhaust system
USA	Granted	1985000710057	4,800,856	03/11/1985	01/31/1989	Abrasion resistant roller apparatus for internal combustion engines
USA	Granted	1987000041302	4,821,197	04/22/1987	04/11/1989	Apparatus and method for parts assembly
USA	Granted	1987000131449	4,831.820	12/11/1987	05/23/1989	Engine with exhaust gas sensing
USA	Granted	1987000043108	4,831,979	04/27/1987	05/23/1989	Wrist pin lubrication system for two cycle engines
USA	Granted	1987000129457	4,838,822	12/07/1987	06/13/1989	Shift linkage for marine propulsion device
USA	Granted	07/055,733	4,850,910	05/29/1987	07/25/1989	Counter-Rotation Transmission
USA	Granted	07/131,457	4,858,585	12/11/1987	08/22/1989	Fuel supply system component assembly
USA	Granted	07/137509	4,861,296	12/23/1987	08/29/1989	Marine propulsion device exhaust system
USA	Granted	07/311,090	4,862,861	02/15/1989	09/05/1989	Under flywheel ignition system
USA	Granted	07/182,477	4,863,406	04/15/1988	09/05/1989	Marine propulsion device with two piece propeller shaft asse
USA	Granted	215,575	4,870,929	07/06/1988	10/03/1989	Multi-Cylinder Engine with Uniform Cylinder Sensitivity to K
U\$A	Granted	123,357	4,892,066	11/19/1987	01/09/1990	Multi-Cylinder Two-Stroke Engine with Reduced Cost and Compl
U\$A	Granted	316,154	4,898,134	02/27/1989	02/06/1990	Crankcase Seal Arrangement for Two Cycle Engine
USA	Granted	338,743	4,903,648	04/14/1989	02/27/1990	Engine with Improved Exhaust Gas Sensing
USA	Granted	07/106,118	4,906,214	10/07/1987	03/06/1990	Marine propulsion device low-speed exhaust system
USA	Granted	403,985	4,925,411	09/06/1989	05/15/1990	Marine propulsion device tilt and trim mechanism
USA	Granted	270.767	4,932,795	11/10/1988	06/12/1990	Electrically conductive plastic bushings for marine propulsion devices
USA	Granted	722,004	4,938,726	04/11/1985	07/03/1990	Marine propulsion device bellows assembly
USA	Granted	188.952	4.947.807	05/02/1988	08/14/1990	Internal combustion engine
USA	Granted	350,936	4,948,384	05/12/1989	08/14/1990	Marine propulsion device anode arrangement
USA	Granted	351,446	4,950,188	05/12/1989	08/21/1990	Stern drive unit
USA	Granted	272,544	4,951,520	11/17/1988	08/28/1990	Single lever control
ŲSA	Granted	07/315,147	4,957,091	02/24/1989	09/18/1990	Dual schedule ignilion system
USA	Granted	07/351,865	4,959,033	05/12/1989	09/25/1990	Marine propulsion device cover arrangement
USA	Granted	316,417	4,966,567	02/27/1989	10/30/1990	Marine propulsion device
USA	Granted	351,857	4,971,585	05/12/1989	11/20/1990	Marine propulsion device seal arrangement
USA	Granted	797,745	4,978,321	11/12/1985	12/18/1990	Baffled air intake system for outboard motors
USA	Granted	316,285	4,979,918	02/27/1989	12/25/1990	Outboard motor vibration Isolation system including improved rubber mount
						Method and apparatus for determining necessary shim thickness for a marine propulsion device
USA	Granted	387,196	4,993,165	07/31/1989	02/19/1991	pinion and bearing carrier
USA	Granted	526,065	4,993,369	05/18/1990	02/19/1991	Internal combustion engine
USA	Granted	351,441	4,993,979	05/12/1989	02/19/1991	Marine propulsion device
USA	Granted	523,328	4,998,969	05/14/1990	03/12/1991	Engine maintenance fluid introduction system Internal combustion engine with recessed intake
USA	Granted	482,932	5,005,535	02/20/1990	04/09/1991	Marine propulsion device with removable clutch
USA	Granted	351,830	5,006,085	05/12/1989	04/09/1991	assembly
USA	Granted	525,251	5,007,393	05/17/1990	04/16/1991	Integral lifting hook for an outboard engine Apparatus for lost foam molding and method of assembling same
USA	Granted	561,290	5,011,398	07/26/1990	04/30/1991	Lost foam engine block pattern
USA	Granted	306,245	5,018,568	02/02/1989	05/28/1991	Lost rount engine block pattern

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Granted	512,951	5,022,355	04/23/1990	06/11/1991	Internal combustion engine
USA	Granted	487,669	5,024,188	03/02/1990	06/18/1991	Fuel supply system component assembly
USA	Granted	334,912	5,029,095	04/06/1989	07/02/1991	Apparatus and method for parts assembly
USA	Granted	1990000475982	5,030,147	02/06/1990	09/09/1991	In-trimming hydraulic circuit
USA	Granted	315,900	5,031,685	02/27/1989	07/16/1991	Internal combustion engine and method for making the same
USA	Granted	387,858	5,032,095	06/19/1989	07/16/1991	Marine Engine with Galvanic Circuit Protection
USA	Granted	351,432	5,033,983	05/12/1989	07/23/1991	Marine Propulsion Device Shift Linkage
USA	Granted	512,797	5,035,211	04/23/1990	07/30/1991	Internal combustion engine
USA	Granted	351,703	5.035,663	05/12/1989	07/30/1991	Marine Propulsion Device Retention Mechanism
USA	Granted	351,172	5,035,664	05/12/1989	07/30/1991	Marine propulsion device gear arrangement
USA	Granted	509,978	5,038,724	04/16/1990	08/13/1991	Debris resistant valve assembly
USA	Granted	527,556	5,040,519	05/23/1990	08/20/1991	System to prevent reverse engine operation
USA	Granted	515,824	5,044,599	04/27/1990	09/03/1991	Cover for transom bracket mounting screws
USA	Granted	583,008	5,048,468	09/14/1990	09/17/1991	Marine propulsion device with closed deck Cylinder Block Con
USA	Granted	509,877	5,048,751	04/16/1990	09/17/1991	Pressure and Temperature Relief Valve and Diaphragm Valve
						Marine propulsion device with arrangement for
USA	Granted	479,936	5,049,101	02/14/1990	09/17/1991	flushing engine cooling jacket
USA	Granted	526,499	5,052,353	05/18/1990	10/01/1991	Marine propulsion device cowl assembly Marine propulsion device with dual position tilt
USA	Granted	523,029	5,052,956	05/14/1990	10/01/1991	lock
USA	Granted	512,994	5,052,959	04/23/1990	10/01/1991	Marine propulsion device bearing arrangement
USA	Granted	636,581	5,054,537	01/07/1991	10/08/1991	Lost Foam Pattern Assembly For V-Block Engine
USA	Granted	525,746	5,062,403	05/18/199D	11/05/1991	Internal combustion engine
USA	Granted	1990000525595	5,069,643	05/18/1990	12/03/1991	Molded lower motor cover
USA	Granted	1990000479945	5,078,101	02/14/1990	01/07/1992	Marine propulsion device internal combustion engine
USA	Granted	1989000451885	5,078,627	12/18/1989	01/07/1992	Voltage regulator and rectifier having over- temperature protection
USA	Granted	1990000525862	5,080,617	05/18/1990	01/14/1992	Marine propulsion device with directable telltale discharge
USA	Granted	1990000512826	5,080,955	04/23/1990	01/14/1992	Foam pattern assembly and method for making the same
USA	Granted	1989000351170	5.083,952	05/12/1989	01/28/1992	Marine proutsio device4 exhaust system
USA	Granted	1990000521590	5,086,825	05/10/1990	02/11/1992	Method for manufacturing foam pattern assemblies
USA	Granted	1990000623272	5,088,344	12/06/1990	02/18/1992	Marine propulsion internal combustion engine
USA	Granted	1990000554542	5,101,626	07/19/1990	04/07/1992	Exhaust gas discharge system for two- strokeinternal combustion engine
USA	Granted	1990000523329	5,102,358	05/14/1990	04/07/1992	Marine propulsion device with trailing mechanism including positive mechanical latch
USA	Granted	589.430	5,106,330	09/28/1990	04/21/1992	Exhaust Relief System With Baffle
USA	Granted	1989000373283	5,112,259	06/26/1989	05/12/1992	Two piece drive shaft retention device for outboard motor
USA	Granted	657,241	5,112,260	12/17/1990	05/12/1992	Marine Propulsion Device Exhaust System
USA	Granted	1991000740988	5,129,847	08/06/1991	07/14/1992	Pivotal air induction for marine propulsion unit
USA	Granted	602,919	5,131,366	10/25/1990	07/21/1992	Apparatus for positioning a sensor
USA	Granted	1991000710070	5,134,976	06/04/1991	08/04/1992	Internal combustion engine
USA	Granted	631,207	5,137,002	12/21/1990	04/11/1992	Vapor Separator
USA	Granted	1991000709599	5,137,480	06/03/1991	08/11/1992	Marine propulsion device hydraulic assembly including a blow molded reservoir
USA	Granted	1991000710163	5,151,059	06/04/1991	09/29/1992	Shiftable reversing transmission for marine propulsion device
USA	Granted	1990000526044	5,154,651	05/18/1990	10/13/1992	Marine propulsion device tilt tube

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Granted	1991000744952	5,167,546	08/14/1991	12/01/1992	Automatic trim system
USA	Granted	1992000841048	5,170,752	02/25/1992	12/15/1992	Thermostat cover with snap-in nipple
USA	Granted	1992000829411	5,174,252	02/03/1992	12/29/1992	Exhaust manifold expansion slot for internal combustion motor
USA	Granted	1991000701618	5,176,093	05/14/1991	01/05/1993	Marine propulsion device
USA	Granted	1991000736476	5,176,549	07/26/1991	01/05/1993	Marine steering apparatus
USA	Granted	1992000847437	5,176,551	03/06/1992	01/05/1993	Arrangement for supplying combustion air to an outboard motor
USA	Granted	1992000834609	5,178,567	02/12/1992	01/12/1993	Marine engine housing cooling apparatus
USA	Granted	1991000723811	5,178,568	07/01/1991	01/12/1993	Marine propulsion device with trailing mechanism including positive mechanical latch
USA	Granted	1991000716912	5,18D,320	06/18/1991	01/19/1993	Tilt switch for tiller-steered outboard
USA	Granted	1991000659851	5,180,925	02/22/1991	01/19/1993	Remote switching system for an electric trolling motor
USA	Granted	608,541	5,184,080	11/02/1990	02/02/1993	Test Apparatus For Opto-Electronic Time Based Generator Of A
USA	Granted	1991000737388	5,188,206	07/29/1991	02/23/1993	Single lever control
USA	Granted	1991000734896	5,191,860	07/24/1991	03/09/1993	Marine propulsion device with closed deck cylinder block construction
USA	Granted	1991000782545	5,192,235	10/25/1991	03/09/1993	Outboard motor vibration isolation system including improved rubber mount
USA	Granted	1992000831525	5,193,499	02/05/1992	03/16/1993	Cast inter-cylinder cooling passage for internal combustion motors
USA	Granted	1991000654088	5,193,500	02/11/1991	03/16/1993	Oiling system for internal combustion engine
USA	Granted	1992000847928	5,194,025	03/06/1992	0316/1993	Vibration absorbing steeringdevice for outboard motor
USA	Granted	1991000657658	5,195,276	02/15/1991	03/23/1993	Apparatus and method for flushing a casting
USA	Granted	659,901	5,195,914	02/25/1991	03/23/1993	Two-stage tilt cylinder mechanism for marine propulsion stem bracket assembly
USA	Granted	1992000908151	5,199,388	07/02/1992	04/06/1993	Axial fan flywheel
USA	Granted	1992000874740	5,199,480	04/27/1992	04/06/1993	Sealed shot sleeve for vacuum die casting
USA	Granted	1991000762859	5,201,680	D4/13/1993	04/13/1994	Marine propulsion device having quick-disconnect connector
USA	Granted	1991000782427	5,203,167	10/25/1991	04/20/1993	Marine propulsion device internal combustion engine and method for making the same
USA	Granted	1992000830769	5,203,306	02/03/1992	04/20/1993	Fuel feed system
USA	Granted	07/874,629	5,203,396	04/27/1992	04/20/1993	Vacuum valve apparatus for die casting
USA	Granted	1991000793317	5,205,868	11/15/1991	04/27/93	Lost foam pattern assembly apparatus
USA	Granted	1991000726157	5,209,684	05/11/1993	05/11/1993	Marine propulsion device
USA	Granted	1992000898481	5,211,591	06/15/1992	05/18/1993	Shift rod quick connect and disconnect
USA	Granted	07/823,293	5,215,487	01/21/1992	06/01/1993	Marine Propulsion Device Water Inlet Screen
USA	Granted	874,648	5,219,409	04/27/1992	06/15/1993	Vacuum die casting process
USA	Granted	07/989,806	5,228,194	12/09/1992	07/20/1993	Marine propulsion device with closed deck
USA	Granted	07/808,846	5,231,967	12/16/1991	08/03/1993	Fuel pump and fuel filter for a marine installation
USA	Granted	823,258	5,234,362	01/21/1992	08/10/1993	Outboard motor with improved housing interface
USA	Granted	07/918,444	5,245,960	07/22/1992	09/21/1993	Integral bracket and idler assembly Throttle Lever Position Sensor for two-stroke fuel
USA	Granted	954,492	5,273,016	09/30/1992	12/28/1993	injected Exhaust Discharge for a Pump Jet
USA	Granted	07/852,535	5,273,467	03/17/1992	12/28/1993	Internal Combustion Engine Oil Pump
USA	Granted	896,143	5,275,539	06/09/1992	01/04/1994	Lower Unit Torpedo Configuration
USA	Granted	945,821	5,277,634	09/15/1992	01/11/1994	Internal Combustion Engine and Method for
USA	Granted	07/841,905	5,285,839	02/26/1992	02/15/1994	Making Same Vaccum valve design for die casting
USA USA	Granted Granted	07/847,368	5,293,693 5,295,881	04/27/1992 11/10/1992	03/15/1994	Marine propulsion device with coolant water passages

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Granted	20,905	5,306,185	02/22/1993	04/26/1994	Catalytic Element For Marine Propulsion Device
USA	Granted	7.839	5,309,885	01/25/1993	05/10/1994	Marine propulsion device including a fuel injected four cycl
USA	Granted	49,766	5,314,002	04/19/1993	05/24/1994	Vacuum Valve Apparatus for die Casting
USA	Granted	08/146,324	5,325,662	11/02/1993	07/05/1994	Advanced Exhaust discharge for pump jet propulsion apparatus
USA	Granted	918,582	5,332,368	07/22/1992	07/26/1994	Air compressor having a high pressure output
USA	Granted	49,155	5,345,910	04/19/1993	09/13/1994	Engine Ignition system having improved warmup advanced timing control
USA	Granted	08/083,998	5,348,500	06/28/1993	09/20/1994	Marine propulsion device with selectively operable secondary exhaust discharge
USA	Granted	08/017,041	5,349,919	02/12/1993	D9/27/1994	Recreational boat
USA	Granted	77,562	5,350,329	06/15/1993	09/27/1994	Flushing system for outboard motor
USA	Granted	1993000065993	5,360,358	05/21/1993	11/01/1994	Hidden lower motor cover attachment means
USA	Granted	216,770	5,372,176	03/23/1994	12/13/1994	Method and Apparatus for Producing Housing Having a Cast-In-Place Insert Using Lost Foam Process
USA	Granted	959,865	5,372,429	10/13/1992	12/13/1994	Sealable and reusable pouch
USA	Granted	46,492	5,372,529	04/09/1993	12/13/1994	Trim assembly
USA	Granted	127,793	5,372,530	09/28/1993	12/13/1994	Outboard motor with separated exhaust gas pulsing and ehxhaust gas discharge
USA	Granled	078,137	5,378,178	06/15/1993	01/03/1995	Tiller Arm and Steering Bracket Assembly
USA	Granted	127,792	5,381,763	09/28/1993	01/17/1995	Dry Head Cooling System
USA	Granled	106,277	5,392,742	08/13/1993	02/28/1995	Heated Intake Manifold for Four Stroke Outboard Motor
USA	Granted	77,007	5,398,645	06/15/1993	03/21/1995	Combustion chamber for internal combustion engine
USA	Granted	272,416	5,402,759	07/08/1994	04/04/1995	Cylinder Decompression Arrangement in Cam Shaft
USA	Granted	235,367	5,404,846	04/29/1994	04/11/1995	Jet Pump Exhaust System
USA	Granted	126,549	5,407,372	09/24/1993	04/18/1995	Outboard motor cover assmbly
USA	Granted	106,055	5,407,523	08/13/1993	04/18/1995	Apparatus for assembling lost foam casting patterns
USA	Granted	127,883	5,408,827	09/28/1993	D4/25/1995	Marine propulsion device with improved catalyst support arrangement
U\$A	Granted	799,735	5,409,409	11/22/1991	04/25/1995	Marine apparatus
USA	Granted	118,155	5,410,110	09/08/1993	04/25/1995	Air Silencer Mounting Arrangement
USA	Granted	48,380	5,410,999	04/15/1993	05/02/1995	Two-stroke internal combustion engine with improved air intake system
USA	Granted	118,413	5,411,423	09/08/1993	05/02/1995	Marine propulsion device with releasabley coupled drive shaft assembly
USA	Granted	247,000	5,419,037	05/20/1994	05/30/1995	Method of inserting, boring, and honing a cylinder bore liner
USA	Granted	253,926	5,421,298	06/03/1994	06/06/1995	Outboard motor including easy withdrawal and insertion of camshaft and rocker arm support shaft
USA	Granted	128,475	5,425,232	09/28/1993	06/20/1995	Marine propulsion device with means for supplying secondary air to catalytic converter
USA	Granted	136,413	5,437,155	10/13/1993	08/01/1995	Outboard Motor Exhaust System
USA	Granted	235,502	5,443,044	04/29/1994	08/22/1995	Outboard motor with four stroke engine
USA	Granted	126,784	5,443,406	09/24/1993	08/22/1995	Vibration isolating mounting for outboard motor
USA	Granted	235,682	5,449,033	04/29/1994	09/12/1995	Cylinder head pattern assembly
USA	Granted	245,977	5,456,230	05/19/1994	10/10/1995	Four-Stroke Internal Combustion Engine with Contaminated Oil
USA	Granted	08/147,860	5.460,552	11/05/1993	10/24/1995	Adaptor Place Mounting System For Marine Jet Propulsion Unit

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Granted	147,933	5,460,553	11/05/1993	10/24/1995	Jet pump mounting system
1104		050 000	5 100 101	00/00/4004	40/04/4005	Outboard motor with oil sump cooling
USA	Granted	253,862	5,462,464	06/03/1994	10/31/1995	arrangement Outboard Motor With Four-Stroke Engine And
USA	Granted	318,368	5,463,990	10/05/1994	11/07/1995	Exhaust Gas Disch Jet Pump Exhaust System
USA	Granted	147,973	5,464,357	11/05/1993	11/0//1995	
USA	Granted	295,811	5,469,828	03/04/1993	11/28/1995	Fuel injection device according to the solid energy storage principle for internal combustion engine
USA	Granted	1993000098418	5,471,958	07/27/1993	12/05/1995	Internal combustion engine with lubricatingoil supply system
USA	Granted	276,718	5,472,013	07/18/1994	12/05/1995	Fuel injection Nozzle
USA	Granted	375,268	5,474,035	01/19/1995	12/12/1995	Engine Breather Construction
USA	Granted	321,053	5,480,330	10/04/1994	01/02/1996	Marine Propulsion Pump With Two Counter Rotating Impellers
USA	Granted	1993000169537	5,490,534	12/17/1993	02/13/1996	Double solenoid valve actuator
USA	Granted	313,538	5,490,804	09/27/1994	02/13/1996	Marine Propulsion Unit having exteriorly accessible clean-ou
USA	Granted	318,364	5,494,613	10/05/1994	02/27/1996	Carburetor With Enrichment Fuel Pump
USA	Granted	1994000254999	5,498,181	06/07/1994	03/12/1996	Outboard motor power head assembly
USA	Granted	1994000255096	5,498,182	06/07/1994	03/12/1996	Outboard motor exhaust housing and lost foam pattern therefore
USA	Granted	175,260	5,503,576	12/29/1993	04/02/1996	Vibration Isolation Means For Outboard Motor
USA	Granted	1994000268836	5,503,577	06/29/1994	04/02/1996	Combined flywheel and timing gear cover
USA	Granted	1994000255336	5,516,990	06/07/1994	05/14/1996	Engine incoming air silencer and mounting arrangement therefore
USA	Granted	354,532	5,517,962	12/13/1994	05/21/1996	Variable Timing Ignition Circuit Including Conditional Ignit
U\$A	Granted	368.660	5,522,743	01/04/1995	06/04/1996	Marine Propeller with rubber Bushing having Lobular Configur
USA	Granted	536,721	5.524,578	09/29/1995	06/11/1996	Two-Cycle engine having improved idle relief
USA	Granted	318,382	5,524,581	10/05/1994	06/11/1996	Outboard Motor With Improved Engine Lubrication System
USA	Granted	09/181,578	5,530,305	11/24/1994	06/25/1996	Improved Marine Alternator Engine Construction
USA	Granted	322,207	5,540,084	10/13/1994	07/30/1996	Vacuum System Testing Tool
USA	Granted	318,369	5,544,631	10/05/1994	08/13/1996	Cylinder Head Construction For Outboard Motor With Four-Stro
USA	Granted	08/428,338	5,544,673	04/25/1995	08/13/1996	Method and Arrangement for Assembling Fuel Injection Nozzies
USA	Granted	1994000253362	5,558,058	06/03/1994	09/24/1996	Four stroke engine with combined oil pump and filter assembly
USA	Granted	418,502	5,562,428	04/07/1995	10/08/1996	Fuel Injection Pump having an adjustable inlet poppet valve
USA	Granted	376,779	5,562,511	01/23/1995	10/08/1996	Marine Apparatus
USA	Granted	541,858	5,570,662	10/10/1995	11/05/1998	Internal combustion engine with Lubricating oil Supply syste
USA	Granted	448,191	5,573,436	05/23/1995	11/12/1996	Semi-Submersible Outboard Motor Cover with Air Passage
USA	Granted	552,396	5,595,235	11/03/1995	01/21/1997	Outboard motor exhaust housing and tost foam pattern therefor
USA	Granted	08/506,465	5,608,369	07/25/1995	03/04/1997	Magnetic Gap Construction
USA	Granted	1996000587336	5,624,693	01/16/1996	04/29/1997	Molding apparatus with combined venting and flushing valve
USA	Granted	276,545	5,630,401	07/18/1994	05/20/1997	Combined Fuel Injection Pump and Nozzle
USA	Granted	08/507,051	5,632,241	07/25/1995	05/27/1997	Oil Lubricating System for a two stroke internal combustion
USA	Granted	08/507,058	5,639,062	07/25/1995	06/17/1997	Modified Heel Valve Construction

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Granted	08/552395	5,657,724	11/03/1995	08/19/1997	Internal combustion engine construction
USA	Granted	507,646	5.661,895	07/25/1995	09/02/1997	Method of controlling the magnetic gap lenght and the initial stroke lenght of a pressure surge fuel pump
USA	Granted	001,040	5,662,081	07/24/1995	09/02/1997	Oil supply failure detection circuit
USA	Granted	08/507,660	5,692,468	07/25/1995	12/02/1997	Fuel Injected Internal Combustion Engine With Improved Combu
USA	Granted	697,061	5,700,168	08/19/1996	12/23/1997	Electronic Ignition Interruption apparatus
USA	Granted	635,839	5,711,263	04/22/1996	D1/27/199B	Fuel Primer Pressure Accumulator
USA	Granted	489,363	5,714,104	06/12/1995	02/03/1998	Method of molding FRP parts
USA	Granted	704,219	5,717,130	08/23/1996	02/10/1998	Method and apparatus for determining emission measurement ac
USA	Granted	418,568	5,718,864	04/07/1995	02/17/1998	Thermosetting resin transfer molding process
USA	Granted	08/733159	5,730,105	10/17/1996	03/24/1998	Idle Control for Internal Combustion Engine
USA	Granted	741,260	5,781,443	10/30/1996	07/14/1998	Apparatus for use in parts assembly
USA	Granted	628,844	5,794,584	04/05/1996	08/18/1998	Stratified Combustion chamber for a cross- scavenged two stro
USA	Granted	389,091	5,805,450	02/15/1995	09/08/1998	Electronic Ignition Timing control and engine management sys
USA	Granted	507,692	5,808,504	07/25/1995	09/15/1998	Hybrid Ignition circuit for an internal combustion engine
USA	Granted	681,886	5,809,776	07/29/1996	09/22/1998	Catalyc converier with radial outflow and by-pass valve
USA	Granted	589,038	5,829,249	01/19/1996	11/03/1998	Internal Combustion Engine with exhaust passage and reactor
USA	Granted	493,378	5,861,181	06/21/1995	01/19/1999	Die Casting Machines Frame modification
USA	Granted	D8/926,918	5,992,401	09/10/1997	11/30/1999	Capacitive discharge ignition for an internal combustion engine
USA	Granted	09/482,493	6,083,063	01/13/2000	07/04/2000	Pump Jet Apparatus with articulating weed grate clean-out sy
USA	Granted	1999000267740	6,116,973	03/15/1999	09/12/2000	Apparatus and methods for preventing relative side to side motion between a propshaft housing and a gear case.
USA	Granted	09/265,075	6,132,269	03/09/1999	10/17/2000	Cantilever Jet Drive Package
USA	Granted	09/179,947	6,190,219	10/27/1997	02/20/2001	Seal System for Outboard Motor Covers
USA	Granted	09/547,589	6,193,572	04/11/2000	02/27/2001	Propeller Assembly Including a Cantilever Spring
USA	Granted	1993000130633	6,196,524	10/01/1993	03/06/2001	Fuel enrichment system Propeller Having a Stress Relief Flare
USA	Granted	09/327,890	6,210,110	06/08/1999	04/03/2001	Arrangement Tilt-Trim Subsystem For Marine Propulsion
USA	Granted	09/458,284	6,220,905	12/10/1999	04/24/2001	Systems
USA	Granted	09/391,288	6,224,434	09/07/1999	05/01/2001	Pump Jet with Axial Directional Flow Control Device for Thru
USA	Granted	09/672,137	6,233,943	09/27/2000	05/22/2001	Computerized System and Method for Synchronizing Engine Spee
USA	Granted	1999000425431	6,244,917	10/22/1999	06/12/2001	Fuel delivery system for a boat
USA	Granted	09/444,472	6,249,069	11/22/1999	06/19/2001	Output Regulation of Internal Combustion Engine Alternator b
USA	Granted	09/540,683	6,280,267	03/31/2000	08/28/2001	Retractable Trolling Motor
USA	Granted	09/603,044	6,280,270	06/26/2000	08/28/2001	Assembly and Method For Routing Exhaust Trough a Gimbal in a
USA	Granted	09/536,497	6,293,836	03/27/2000	09/25/2001	Water Jet Propulsion Unit with Means for Varying Area of Noz
USA	Granted	09/397,819	6,293,838	09/17/1999	09/25/2001	A Marine Propulsion System And Method For Controlling Engine

Country Name	Status Description	Application Number	Palent Number	Application Date	Grant Date	Title
USA	Granted	09/468,569	6,296,535	12/21/1999	10/02/2001	Tilt-Trim Subsystem For Boats Using A Stern Drive System
USA	Granted	09/591,305	6,299,494	06/09/2000	10/09/2001	Articulating Nozzle Assembly for Water Jet Apparatus
USA	Granted	09/552,750	6,302,755	04/19/2000	10/16/2001	A Transom Seal Providing Independently Secure Dual Sealing T
USA	Granted	09/543,437	6,305,997	04/05/2000	10/23/2001	Self-Aligning Universal Joint Assembly for a Stern Drive
USA	Granted	09/558,681	6,315,624	04/26/2000	11/13/2001	Exhaust Probe
USA	Granted	09/610,793	6,318,344	07/06/200D	11/20/2001	Deaded-Headed Fuel Delivery System Using A Single Fuel Pump
USA	Granted	09/561,724	6,326,895	05/01/2000	12/04/2001	Fluid Level Sensor For Fluid Tanks of Boats
USA	Granted	1999000316582	6,345,581	05/21/1999	02/12/2002	Modular pontoon boats
USA	Granted	09/621,382	6,346,017	07/21/2000	02/12/2002	Gear Shift Mechanism For Outboard Motor Drive
USA	Granted	D9/540,698	6,349,885	03/31/2000	02/26/2002	Fuel Injector For Internal Combustion Engines and Method for
USA	Granted	09/540,305	6,350,164	03/31/2000	02/26/2002	Dual Electric Motor Stern Drive with Forward Thruster Contro
USA	Granted	09/606,634	6,350,187	06/29/2000	02/26/2002	Inflatable Transom Seal and Techniques for Assembling such S
USA	Granted	09/540,691	6,351,704	03/31/2000	02/26/2002	Method and Apparatus for Calibrating a Position Sensor Used
USA	Granted	09/543,725	6,352,457	04/05/2000	03/05/2002	Assembly and Method for Providing Shift Control for a Marine
USA	Granted	09/547,007	6,354,802	04/11/2000	03/12/2002	Propeller Assembly Including A Spiral Wound Spring
USA	Granted	09/640,817	6,357,408	03/31/2000	03/19/2002	System and Method for Eliminating Pocket Sparking in an Inte
USA	Granted	09/570,629	6,358,106	05/15/2000	03/19/2002	Vibro-Acoustic Treatment for Engine Noise Suppression
USA	Granted	09/541,356	6,361,385	03/31/2000	03/26/2002	Dual Electric Motor Stern Drive With Forward Rudder Control
USA	Granted	09/540,079	6,363,874	03/31/2000	04/02/2002	Rotational Electric Bow Thruster For A Marine Propulsion Sys
USA	Granted	09/621,073	6,368,170	07/21/2000	04/09/2002	Marine Propulsion Apparatus Having Interchangeable Parts
USA	Granted	09/547,591	6,375 <u>,52</u> 8	04/11/2000	04/23/2002	Adjustable Variable Vent Opening Plugs for Engine Exhaust
USA	Granted	09/664,175	6,378,472	09/19/2000	04/30/2002	Oiting System Isolation and Regulator Valve
USA	Granted	09/641,325	6,398,511	08/18/2000	06/04/2002	Injector Driver Circuit With Energy Storage Apparatus
USA	Granted	09/702,250	6,399,153	10/31/2000	06/04/2002	Method and Apparatus for air masking portion of component du
USA	Granted	09/686,310	6,415,764	10/11/2000	07/09/2002	Computerized System and Method for Controlling Engine Speed
USA	Granted	09/681,021	6,416,367	11/28/2000	07/09/2002	Shift Linkage
USA	Granted	09/540,082	6,416,368	03/31/2000	07/09/2002	Unitary Inboard Electric Propulsion System
USA	Granted	09/730,720	6,416,370	12/06/2000	07/09/2002	Watercraft Hydraulic Apparatus
USA	Granted	09/689,456	6,416,373	10/12/2000	07/09/2002	Oil System Vent With Remote Oil Reservoir
USA	Granted	09/571,751	6,419,535	05/15/2000	07/16/2002	Outboard Engine with Acoustic Seals Installed in Motor Housi
USA	Granted	09/631,420	6,422,255	08/03/2000	07/23/2002	Multi-Function Valve Having A Movable Seat And Needle
USA	Granted	09/724,370	6,425,364	11/28/2000	07/30/2002	Two-Stroke Direct Fuel Injected Marine Engine Having Anodize

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Granted	09/928,638	6,428,370	08/13/2001	08/06/2002	Water Jet Propulsion System Having Reverse Gate Optimized fo
USA	Granted	09/928,063	6,428,372	08/11/2001	08/06/2002	Water Jet Propulsion Unit with Retractable Rudder
USA	Granted	09/681,022	6,431,199	11/28/2000	08/13/2002	Vent Control System
USA	Granted	09/681,020	6,453,877	11/28/2000	09/24/2002	Fuel Delivery System Using Two Pressure Regulators With a Si
USA	Granted	09/723,496	6,467,472	11/28/2000	10/22/2002	System And Method For Improve Sensing of Exhaust Pressure
USA	Granted	09/723,861	6,468,122	11/28/2000	10/22/2002	Fuel Injected Engine With Cross Scavenging
USA	Granted	10/002,380	6,477,992	10/20/2001	11/12/2002	Oiling System
USA	Granted	09/689,369	6,478,642	10/12/2000	11/12/2002	Oil System with Replaceable Oil Filter for Two- Cycle
USA	Granted	09/723,863	6,481,426	11/28/2000	11/19/2002	Low Signature EM1/RF1 Engine
USA	Granted	09/723,860	6,484,688	11/28/2000	11/26/2002	Control Methodology For An Internal Combustion Engine That U
USA	Granted	09/570,642	6,484,706	05/15/2000	11/26/2002	Nonadjustable Throttle Linkage and Internal Combustion Engin
USA	Granted	09/723,859	6,484,709	11/28/2000	11/26/2002	Valve Arrangement For Combustion Sensor
USA	Granted	09/192,801	6,485,340	11/16/1998	11/26/2002	Electrically Controlled Shift and Throttle System
USA	Granted	09/657,743	6,505,595	09/08/2000	01/14/2003	Method And Apparatus For Controlling Ignition During Engine
USA	Granted	09/707,231	6,505,600	11/06/2000	01/14/2003	Direct Injection Two Stroke Engine Combustion Mapping
USA	Granted	09/588,519	6,508,681	06/05/2000	01/21/2003	Low Friction Exhaust Bellows and Techniques for Construction
USA	Granted	09/653,294	6,511,355	08/31/2000	01/28/2003	Catalyst Exhaust System
USA	Granted	09/722,915	6,517,395	11/27/2000	02/11/2003	Drive Train With a Single Diametral Pitch Pinion Driving Two
USA	Granted	09/723,559	6,526,938	11/28/2000	03/04/2003	Cold Start Strategy For Direct Injected Engines
USA	Granted	10/041,730	6,548,925	01/08/2002	04/15/2003	Moided Flywheel Magnet Cage
USA	Granted	09/681,005	6,549,843	11/13/2000	04/15/2003	Diagnostic System And Method to Temporarily Adjust Fuel Quan
USA	Granted	09/690,608	6,553,963	10/17/2000	04/29/2003	Throttle Assembly With Oil Seal Bushing
USA	Granted	10/002,824	6,554,663	11/01/2001	04/29/2003	Marine Stern Drive Two-Speed Transmission
USA	Granted	09/621,036	6,561,859	07/21/2000	05/13/2003	Marine Engine Steering Arm Yoke and Trunnion Assembly
USA	Granted	09/629,343	6,585,224	08/01/2000	07/01/2003	Outboard Motor Rack System And Related Method Of Use
USA	Granted	09/969,240	6,585,546	10/02/2001	07/01/2003	Methods and Apparatus For Retaining A Propshaft Support Bear
USA	Granted	10/000,176	6,595,814	10/23/2001	07/22/2003	Watercraft Fuel Supply Apparatus and Method
USA	Granted	09/448,368	6,604,494	11/23/1999	08/12/2003	Water-Cooled Engine Control
USA	Granted	09/591,884	6,607,410	06/09/2000	08/19/2003	Single Cylinder Tilt-Trim Assembly For Boats Using a Stern D
USA	Granted	09/717,626	6,609,892	11/21/2000	08/26/2003	Propeller Hub
USA	Granted	09/620,875	6,609,939	07/21/2000	08/26/2003	Marine Engine Mounting Assembly
USA	Granted	09/430,228	6,615,160	10/29/1999	09/02/2003	Methods and Apparatus for Engine Diagnostics
USA	Granted	09/540,375	6,638,122	03/31/2000	10/28/2003	Electric Marine Propulsion System Employing Switched Relucta
USA	Granted	10/137,617	6,647,950	05/02/2002	11/18/2003	Fuel Injected Internal Combustion Engine With Reduced Squish
USA	Granted	09/932,301	6,656,004	08/17/2001	12/02/2003	Tilt-Trim Subsystem For Marine Propulsion Systems
USA	Granted	406,446	RE32,938	08/09/1982	06/06/1989	Dual fuel system for internal combustion engine
USA	Granted	042620	RE34,764	04/02/1993	10/25/1994	Exhaust gas discharge system for two-stroke internal combustion engine

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Granted	509,877	RE35,040	04/16/1990	09/26/1995	Pressure and temperatue relief valve and diaphragm valve
USA	Filed	08/970,585		11/14/1997		High Performance Alternator Using Duplex Mode Generation
USA	Filed	09/267,481		03/11/1999		Oil Injection System
USA	Filed	09/567,539		05/05/2000		Marine Engine Cooling Systems and Methods
USA	Filed	09/614,186		07/11/2000		Watercraft with Steerable Planing Surface
USA	Filed	09/724,237		11/28/2000		Braking System for Jet-Propelled Boat
USA	Filed	09/927,719		08/10/2001		Axial-Flow Outboard Jet Propulsion Unit
USA	Filed	10/005,671		11/08/2001		A Two-Piece Flow Homogenizing Fuel Injection Nozzle and Syst
USA	Filed	10/005,769		11/08/2001		Swirl-Producing Fuel Nozzle and System and Method Incorporat
		•				A Large Volume Flow-Homogenizing Fuel
USA	Filed	10/005,838		11/08/2001		Injection Nozzle and S Device for Delivering and/or Spraying Flowable
USA	Filed	10/049,243	!	07/26/2000		Media especia
USA	Filed	10/063.403		04/18/2002		Two-Stroke, direct-injected engine having a fuel- free crankc
UŞA	Filed	10/092,717		03/08/2002		Engine Diagnostic Via PDA
USA	Filed	10/171,460		06/12/2002		Convertible Outboard Motor Tiller Arm and Motor Incorporatin
USA	Filed	10/206,992		07/30/2002		Watercraft With Flexible Seating Configurations
USA	Filed	10/207,003		07/30/2002		Watercraft With Collapsible Privacy Compartment
USA	Filed	10/207,004		07/30/2002		Watercraft With Improved Stability
USA	Filed	10/209,658		08/01/2002		Watercraft
USA	Filed	10/210,879		08/02/2002	1	Shaft Guard
USA	Filed	10/248,722		02/12/2003	 	W-Bowl Piston
USA	Filed	10/249.055		03/12/2003		Propeller Shaft Housing Retention System
USA	Filed	10/268,383		10/10/2002		Oil Injection System
USA	Filed	10/349,616		01/22/2003		A System and Method for Lubricating an Internal Combustion E
USA	Filed	10/349,944		01/22/2003		Oil Pressure Monitoring System for Two-Stroke Engines
USA	Filed	10/410,236		04/10/2003		Outboard Engine Cowling
USA	Filed	10/411,190		04/11/2003		Watercraft Having a Jet Propulsion System with Improved Effi
USA	Filed	10/436,791		05/12/2003		Methods and apparatus for engine diagnostics
USA	Filed	10/605,168		09/12/2003		Method and System For Fuel Injector Time Delay Installation
USA	Filed	10/605,618		10/14/2003	<u> </u>	Reverse gate for a watercraft
USA	Filed	10/605,620		10/14/2003		Actuator Assisted Blow-Off Valve Assembly to Control Coolant
						Adaptative idle speed control for a direct injected internal combustion engine
USA	Filed Filed	10/605,622 10/605,706	1	10/14/2003	 	Swirl Fuel Injector For Internal Combustion Engine
USA	Façu	10/003,700		10/21/2003		System and method for predictive under-fueling
USA	Filed	10/605,709		10/21/2003		and over-fueling in a combustion System and Method to Detect and Correct Spark
USA	Filed	10/605,710		10/21/2003		Plug Fouling i
USA	Filed	10/605,712		10/21/2003		System and method using ion gap sensing for optimization of a multi-spark event in a ma
USA	Filed	10/605,714		10/21/2003	ļ	Air intake silencer
USA	Filed	10/605,937		11/06/2003		Flywheel with torsional dampening ring
USA	Filed	10/615,802		07/10/2003	ļ	Outboard Engine Cowling
USA	Filed	10/615,827	<u></u>	07/10/2003		Outboard Engine Cowling

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Filed	10/615,835		07/10/2003		Outboard Engine Cowling
ŲSA	Filed	10/616,993		07/11/2003		Interchangeable Frame for a Display Device
USA	Filed	10/667,165		09/17/2003)	Reverse gate for water jet propulsion system
USA	Filed	60/020,033		06/21/1996		Multiple spark capacitive discharge ignition system for an internal combustion engine
USA	Filed	60/319,985		02/28/2003		Swirl Fuel Injector For Internal Combustion Engine
USA	Filed	60/330,634		10/26/2001		Engine Diagnostic Via PDA
USA	Filed	60/363,367		03/12/2002		Propeller shaft housing retention system
USA	Filed	60/371,495		04/11/2002		Outboard Engine Cowling
USA	Filed	60/375,400		04/26/2002		Outboard Engine Cowling
USA	Filed	60/375,400		04/26/2002		Outboard engine cowling
USA	Filed	60/445,723		02/06/2003		Motor Cover Spring Latch
	Filed	60/458,367		03/31/2003		Wakeboard Tower/Birnini top combination (sportster 4-tec)
USA USA	Filed	60/458,368		03/31/2003		Wakeboard leverage system (sportster 4-tec)
UŞA	Fileg	00/455,308		<u> </u>		Reverse Gate Assembly for Twin Jet Drive
USA	Filed	60/478,389		06/13/2003		Installations
USA	Filed	60/481,168		08/01/2003		System and Method to Detect and Correct Spark Plug Fouling i
USA	Filed	60/481,186		08/06/2003		System and Method Using Ion Gap Sensing For Optimization of
USA	Filed	60/481,189		08/07/2003		Actuator Assisted Blow-Off Valve Assembly to Control Coolant
USA	Filed	60/481,259		08/19/2003		System and Method For Predictive Under-Fueling an Over-Fueli
USA	Filed	60/481,355		09/10/2003		Air Intake Silencer
USA	Filed	60/481,358		09/11/2003	***	Flywheel with Torsional Dampening Ring
USA	Filed	60/481,494		10/09/2003		Flywheel assembly having elastomer ring
USA	Filed	60/483,123		06/30/2003		Attachment System For Watercraft Accessories
USA	Filed	60/483,183		06/30/2003		Engine cover Assembly For Watercraft
USA	Filed	60/507,083		09/30/2003		Supercharger control system
USA	Filed	60/513,777		10/23/2003		Idle Relief Muffler
USA	Filed	60/514,208		10/24/2003		Dual temperature closed loop cooling system
USA	Filed	PCT/US02/21592		07/10/2002	J	Engine diagnostic software
USA	Filed	10/248,722		02/12/2003		Piston For Spark-Ignited Direct Fuel Injection Engine
USA	Filed	60/507063		09/30/2003		Marine Engine Supercharger
			~			Direct injection two-stroke engine combustion
USA	Filed Filed	WO 02/36946 09/635,262		08/09/2000	1	mapping Deck Boat (Islandia)
USA	Filed	10/640,676		08/14/2003		Deck Boat
USA	Filed	TBA	-	08/14/2003	 	Deck Boat (Buddy Seat)
USA	Filed	07/012336		02/09/1987	1	Electronically assisted engine starting means
	Filed	07/184,145		04/21/1988		Under the flywheel ignition system
USA	Filed	07/637,460		01/04/1991	1	Fuel pump and fuel filter for a marine installation
	Filed			09/17/1991		Fuel pump and fuel filter for a marine installation
USA		07/761,424 08/945,975		06/03/1998		Fuel injection Device for Fuel Injected Engines
USA	Filed			06/01/193D		Tilt-Trim System Having a Motor with Aluminum Bracket
USA	Filed	09/000,001		07/19/1932		Tilt-Trim System Motor with Polyolefin or Chlorosulfinated P
USA	Filed	09/000,005		11/19/1998		Method of operating a fuel injected engine
USA	Filed	09/195,797 09/262,266		03/04/1999		Stern Drive System and Method of Installation Thereof

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Filed	09/268,077		03/12/1999		Fuel Injection for Combustion Engines and Method For Making
USA	Filed	09/316,582		05/21/1999		Modular Pontoon Boats
USA	Filed	09/368,857		08/05/1999		Direct fuel-injected internal combustion using using graphite-based pistons
USA	Filed	09/391,286		09/07/1999		Pump Jet Rotor Housing Modification for Noise Signature Spec
USA	Filed	09/425,431		10/22/1999		A Fuel Delivery System For A Boat
USA	Filed	09/456,161	-	12/07/1999		Water Jet Propulsion Apparatus with Inboard Mounted Power So
USA	Filed	09/468,569		12/21/1999		Single Cylinder Tilt-Trim Assembly For Boats Using a Stern D
USA	Filed	09/528,766		03/17/2000		Reciprocating Fluid Pump Employing Reversing Polarity Motor
USA	Filed	09/540,372		03/31/2000		Marine Propulsion Control System with Bus Signal Transfer To
USA	Filed	09/547,593		04/11/2000		Propeller Assembly
USA	Filed	09/559,867		04/26/2000		Exhaust Diaphragm Assembly
USA	Filed	09/567,365		05/09/2000		A Propulsion System Having Means Dedicated For Driving Acces
USA	Filed	09/568,838		05/11/2000	1	Marine Engine Pressure Relief Valve
USA	Filed	09/579,973		05/26/2000		Method And Apparatus For Quick Starting A Rope-Slart Two-Str
USA	Filed	09/594,310		06/15/2000		Method And Apparatus For Regulating Gas Entrainment in a Fue
USA	Flied	09/597,435		06/20/2000		Fuel Injector Assembly Process
USA	Filed	09/621,510		07/21/2000		Removable Marine Gear Case Plate
USA	Filed	09/670,730		09/27/2000		An Engine Oiling System And An Oil System Distribution Manif
USA	Filed	09/714,062		11/16/2000		System and Method for Information Exchange Between a Multi-D
USA	Filed	09/714,316		11/16/2000		Air Intake Silencer
USA	Filed	09/716,986		10/23/2000		Silk Drive On Small Engines
USA	Filed	09/723,862		11/28/2000		System and Method for Controlling An Internal Combustion Eng
USA	Filed	09/723,864		11/28/2000		Method And Apparatus For Identifying Parameters Of An Engine
USA	Filed	09/723,974		11/28/2000		Dewatering System For Submersible Engine
USA	Filed	09/723,983		11/28/2000		Jet-Propelled Boat Having Through Hull Housing for Shaft Pen
USA	Filed	09/724,054		11/28/2000		Vibration Isolation for Mounting Water Jet Propulsion Unit t
						Submersible Outboard Motor Having Fuel
USA	Filed	09/724,474	<u> </u>	08/09/2002		Injection Vent Control System
USA	Filed	10/064,722				Injector Driver Circuit With Energy Storage
USA	Filed	10/153,370	 	05/21/2002	 	Apparatus
USA	Filed	10/211,556		08/05/2002		Oil System with Replaceable Oil Filter for Two-
USA	Filed	10/243,903		09/13/2002		Cycle Watertight Flywheel Housing For Boats For Using
USA	Filed	10/248,738		02/13/2003	+	A stem Driv Method And Apparatus For Dissipating Heat From
USA	Filed	10/268,430		10/10/2002		A Combustion Diagnostic System And Method to Temporarily
USA	Filed	10/269,590		10/11/2002		Adjust Fuel Quan

Country Name	Status Description	Application Number	Patent Number	Application Date	Grant Date	Title
USA	Filed	10/291,884		11/08/2002		Water-Cooled Engine Control
USA	Filed	10/319,433		12/13/2002		Reverse Gate For Water Jet Propulsion System
USA	Filed	10/349,595		01/22/2003		Shift Enabling Interrupt System
USA	Filed	10/355,769		01/30/2003		Submersible Outboard Motor Having Fuel Injection
USA	Filed	10/359,534		02/03/2003	•	Dewatering System For Submersible Engine
USA	Filed	10/368,109		02/14/2003		Method And Apparatus For Identifying Parameters Of An Engine
USA	Filed	10/436,792		05/13/2003		Methods and Apparatus for Engine Diagnostics
USA	Filed	10/604,438		07/21/2003		Apparatus and Method to reduce engine calibration
USA	Filed	10/668328		09/24/2003		Fuel Pump
USA	Filed	10/675.609		09/30/2003		Fuel injector driver circuit with energy storage apparatus
USA	Filed	60/319,090		01/22/2002		Shift Enabling Interrupt System
USA	Filed	50/319,409		07/19/2002		Apparatus and Method to reduce engine calibration
USA	Filed	PCT/US02/39907		12/13/2002		Direct Fuel-Injected Internal Combustion Engine Having Impro
USA	Filed	TBA		06/20/2002		Water-Cooled Engine Control

RECORDED: 04/27/2004