

1) Family number: 69992006 (US2018156193A)

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Title: MASTLESS WIND TURBINE FOR POWER GENERATION

Priority: US20150237076P 20151005 US20160368303 20161202 US20180901701 20180221

Family:

Publication number	Publication date	Application number	Application date
US2018156193 AA	20180607	US20160368303	20161202
US2018180020 AA	20180628	US20180901701	20180221
US9995275 BA	20180612	US20160368303	20161202
WO18102568 A1	20180607	WO2017US63987	20171130

Probable Assignee: HENCH STEVEN C

Assignee(s):(std): HENCH STEVEN C

Inventor(s):(std): HENCH STEVEN C

Agent(s): NORTON ROSE FULBRIGHT US LLP; GREESON ROBERT L

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): F03D3/00 F03D3/06 F03D9/00 F03D9/11 F03D9/25 (Advanced/Invention)

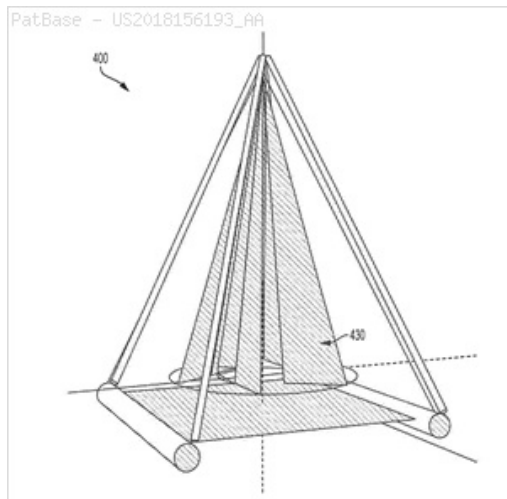
CPC: F03D3/005 F03D9/25 F05B2240/311 F03D9/11 F05B2240/211 F03D3/062 F03D3/064 F05B2210/16 Y02B10/30 Y02E10/74

[Classification Explorer](#)

Cited documents: US2012068465 AA, US2011006540 AA,

Abstract:

A mastless vertical axis wind **turbine** that comprises a plurality of sails that rotate about a vertical axis under the influence of wind. A platform is connected to and in tension with the plurality of sails at one or more points about the bottom of the plurality of the sails. Also, an external frame is connected to and in tension with the plurality of sails at one or more points about the top of the plurality of the sails. The external frame itself comprises a plurality of legs that converge above the plurality of sails at a central point about the vertical axis of rotation and extend beyond the path swept by the plurality of sails. A coupling mechanism connects one or more of the plurality of legs to the plurality of sails and allows the sails to rotate about the vertical axis of rotation while the legs remain stationary.



2) Family number: 42029008 (GB2460114A)

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Title: APPARATUS FOR THE CONTAINMENT OF OPEN WATER ALGAE PLANTATIONS

Priority: GB20080009086 20080520

Family:

Publication number	Publication date	Application number	Application date
GB200809086 A0	20080625	GB20080009086	20080520
GB2460114 A1	20091125	GB20080009086	20080520

Probable Assignee: MUNFORD JOHN R

Assignee(s):(std): MUNFORD JOHN R ; MUNFORD JOHN ROY

Assignee(s): JOHN ROY MUNFORD

Inventor(s):(std): MUNFORD JOHN ROY

Inventor(s): JOHN ROY MUNFORD

International class (IPC 8-9): A01G33/00 (Advanced/Invention); A01G33/00 (Core/Invention)

CPC: Y02P60/12 A01G33/00 C12M21/02 C12M23/18 C12M23/56 Y02A40/88

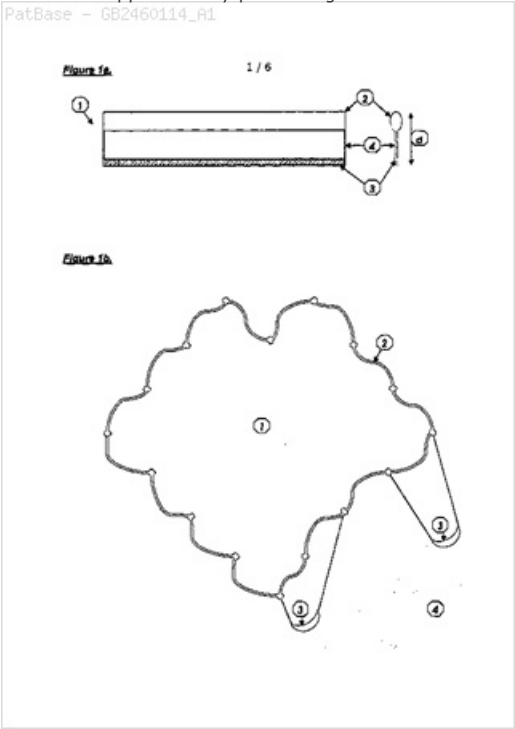
European class: A01G33/00 C12M21/02 C12M23/18 C12M23/56

[Classification Explorer](#)

Cited documents: WO9919570 A1, WO09094196 A2, WO08105649 A1, WO07012696 A1, JPS642520, JP9000106 A2, JP64002520 A2, GB2447905 A1,

Forward Citations: US9673681, US4944843, US2013200635, RU2614786, RU2582365, GB2471492, EP2584030, CN103864189, CN103864189,

Abstract:
Apparatus for the containment of algal plantations in open water, seas or oceans comprises a plurality of linked booms to form an enclosure. Each boom has floating part2and a skirt4which hangs generally vertically from the floating part by means of a weighted hem3. The apparatus may have a plurality of anchors which provide a level of control of the shape of the linked booms and prevent the prevailing winds from closing up the sides of the enclosure. There may be unmanned agitation vessels that transverse the enclosure to circulate the developing crop and ensure even expose to sunlight. There may also be a fertilization mechanism which brings up nutrient rich cold deep water. This invention includes a novel mechanism that combines the provision of nutrient from depth with the sequestration of liberated gases from that deeper water and with the provision of renewable energy that drives the whole process and delivers a surplus of energy for additional supplementary processing.



3) Family number: 24711098 (WO02097264A1)

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Title:

IMPROVEMENTS IN AND RELATING TO FLUID TURBINES AND DEVICES AMELIORATIONS PORTANT SUR DES DISPOSITIFS ET DES

Priority:

NZ20010512054 20010529

Family:

Publication number	Publication date	Application number	Application date
WO02097264 A1	20021205	WO2002NZ00103	20020529

Probable Assignee:

MILES DAVID PETER

Assignee(s):(std):

MILES DAVID PETER

Inventor(s):(std):

MILES DAVID PETER

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

International class (IPC 8-9):

F03D3/02 F03D3/06 F03D9/00 H02K7/18 (Advanced/Invention);
H02K16/00 (Advanced/Non-invention);
F03D3/00 F03D9/00 H02K7/18 (Core/Invention);
H02K16/00 (Core/Non-invention)

International class (IPC 1-7):

F03B11/00 F03D5/06 H02K21/14 H02K27/00 H02K7/06

CPC:

H02K7/183 F03D3/064 F05B2210/16 F05B2210/18 F05B2220/7068 H02K16/00 Y02E10/74 F03D9/25

European class:

F03D3/02 F03D3/06E2 F03D9/00C H02K7/18A2W R05B210/16 R05B210/18 R05B220/7068 T02K16/00 Y02E10/72 Y02E10/74

[Classification Explorer](#)

Cited documents:

WO0103275 A1, SU1787205, RU2115825, RU2103782, RU2064082, JPH11299197, FR2455685 A1, DE3304328 A1, DE19908557 A1, DE19847813 A1, DE19532880 C1,

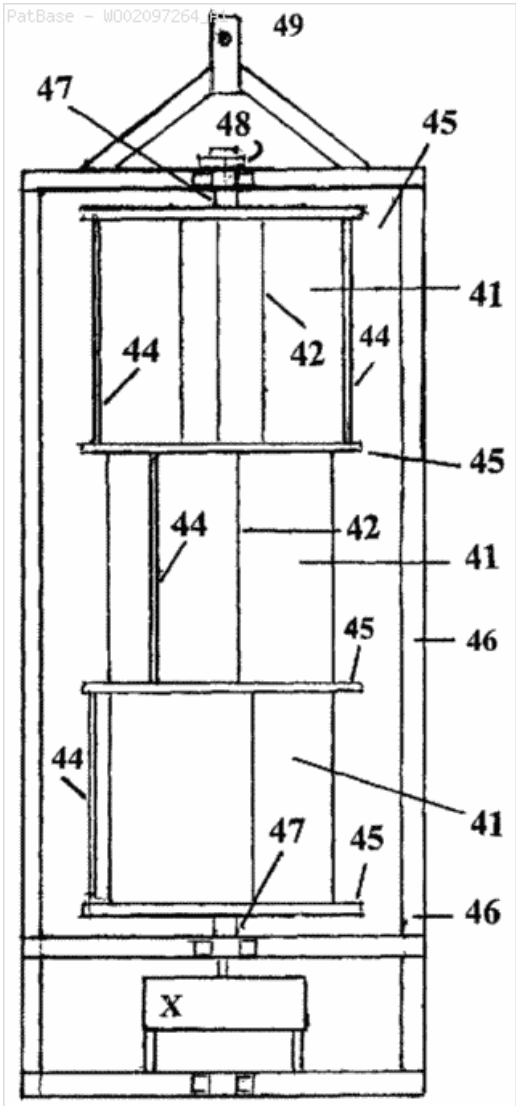
Forward Citations:

WO16114680, WO09092928, WO09015907, WO09015907, WO08131726, WO08131726, GB2469483, GB2461711, FR2926623, EP2987997, EP2318693, EP2318693, EP1650432, EP1650432,

Abstract:

The invention relates to a novel generator, **turbine** and **turbine** generator system for the generation of electricity. The generator (28) comprises a cylindrical stator (6) located about a rotational axis, a rotor (1) having a peripheral sequence of magnets (4), and a plurality of coils (7) disposed about the stator (6), wherein any one coil is independent of any other coil, each being removable from and replaceable on the stator (6). The **turbine** (30) is preferably a vertical axis **turbine** having one or more

blade sets (25), which is suspended from a support means (24). The configuration of the **turbine** (30) is so as to allow self regulation with respect to excessive rotational speed. The invention alternatively discloses the use of a water wheel in conjunction with the generator.



4) Family number: 11243105 (US5232384A)

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Title:

Priority:

Family:

Probable Assignee:

Assignee(s):(std):

Inventor(s):(std):

International class
IPC 8-9):

International class
IPC 1-7):

CPC:

European class:

US class:

Cited documents:

Forward Citations:

Motion drive of marine underwater/abovewater ship

US19890441896 19891127 US19910761404 19910917

Publication number

Publication date

Application number

Application date

US5232384 A 19930803 US19910761404 19910917

KLIMOVITSKY ALEXANDR

KLIMOVITSKY ALEXANDR

KLIMOVITSKY ALEXANDR

B63H11/02 H02N11/00 (Advanced/Invention);
B63H11/00 H02N11/00 (Core/Invention)

B60L11/02

B63H11/02 H02N11/006

B63H11/02 H02N11/00C

440/6

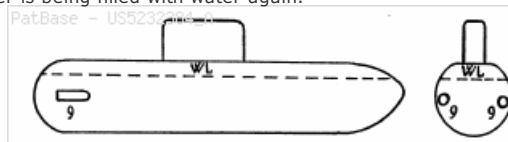
[Classification Explorer](#)

US4821509 A, US4766724 A, US3669056 A, US3647137 A, US3149459 A, US3141296 A, US3128595 A, US3110294 A, US3088988 A, US3079751 A,

US8715496, US8702982, US8685254, US8679331, US8348550, US2010300560, US2009177569, US2009175685, US2009173801, US2009173404,

Abstract:
Motion drive of underwater or abovewater ship where mobile parts of propulsion installation (screw-**propellers**) are eliminated. This allows to achieve high specific compactness and high efficiency of the drive. Different energy sources (kinematic and static) can be used simultaneously or alternatively for activation. This is realized by automatically controlled in time accumulation of high-voltage electric energy on capacitors from different energy sources and their following discharges in aqueous medium of working cylinders mounted on the ship below waterline and made of high structural strength material to withstand high pressure hydraulic impacts. Voltage, current and frequency of these discharges are controlled and regulated by control system. Electrohydraulic phenomenon occurs due to these high-voltage discharges. A direct conversion of electric energy to mechanic energy, specific for this phenomenon, provides controlled reactive movement of the ship. Control system controls low-to-high voltage converters, bank of capacitors for storing high voltage electrical energy, charge and discharge distributors for controlled

commutation for charging and discharging capacitors between electrodes placed within working cylinders, flow of water to the working cylinders. Water within cylinders after each discharge is propelled out from the member driving the ship in direction opposite to a direction of propelled water, then after discharge the cylinder is being filled with water again.



5) Family number: 33113155 (US2006153682A)

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Title: SAVONIUS WIND TURBINE CONSTRUCTION

Priority: US20040592140P 20040730 US20050643109P 20050112 US20050113176 20050425
US20050137557 20050526 US20050137567 20050526 US20050251773 20051018
US20050265278 20051103 CA20052531270 20051229 CA20062534437 20060109
CA20062541683 20060109

Family:	Publication number	Publication date	Application number	Application date
	CA2531270 AA	20061025	CA20052531270	20051229
	CA2534437 AA	20060712	CA20062534437	20060109
	CA2541683 AA	20060712	CA20062541683	20060109
	US2006153682 AA	20060713	US20050113176	20050425
	US2007086895 AA	20070419	US20050251773	20051018
	US2007098558 AA	20070503	US20050265278	20051103
	US7314346 BB	20080101	US20050265278	20051103
	US7381030 BA	20080603	US20050137567	20050526
	US7762777 BB	20100727	US20050113176	20050425
	US7980825 BB	20110719	US20050251773	20051018
	US8038490 BA	20111018	US20050137557	20050526

Probable Assignee: VANDERHYE ROBERT A

Assignee(s):(std): ALDRICH AARON L ; DEXTER MICHAEL H ; HASCUP JUSTIN R ; ROBERT A VANDERHYE ; NUNES BRENDON G ; RENASSELAER POLYTECHNIC INST ; LOWE WYLDE GREGORY J T ; NUNES BRENDON ; LOWE WYIDE GREGORY J T ; TRINTEC IND INC ; VANDERHYE ROBERT A ; TRINTEC INDUSTRIES INC ; ROTSKY BRAD A

Assignee(s): RENSSELAER POLYTECHNIC INST ; RENASSELAER POLYTECHNIC INSTITUTE ; LOW WYLDE GREGORY J T

Inventor(s):(std): ALDRICH AARON L ; DEXTER MICHAEL H ; HASCUP JUSTIN R ; ROTSKY BRAD A ; VANDERHYE ROBERT A ; NUNES BRENDON ; LOWE WYLDE GREGORY J T ; LOWE WYIDE GREGORY J T ; LOW WYLDE GREGORY J T

Inventor(s): LOWE WYLDE GREGORY JT ; VANDERHYE ROBERT ; LOWE WYLDE GREGORY

Agent(s): NA; BERESKIN AND PARR; ROBERT A VANDERHYE

International class
(IPC 8-9): B63H9/00 F03D11/00 F03D3/06 F03D9/00 (Advanced/Invention);
F03D11/00 F03D3/00 F03D9/00 (Core/Invention)

CPC: B63H9/00 B63B1/121 B63H16/14 Y10S416/09 Y10S415/907 Y10S416/02 F03D3/061 F05B2240/301 F03D3/005 F05B2240/14 F05B2240/931 Y02P70/523 F03D3/062 F05B2230/232 F05B2230/60 F05B2240/213 F05B2280/1021 F05B2280/4007 F05C2201/021 F05C2225/08 Y02B10/30 Y02E10/74 Y02T70/5254 F03D9/32 F03D15/10 F03D80/00 F03D80/70

European class: B63B1/12B B63H16/14 B63H9/00 F03D3/00D F03D3/02 F03D3/06D F03D3/06E F03D9/00 R05B230/232 R05B230/60 R05B240/14 R05B240/213 R05B240/301 R05B240/931 R05B280/1021 R05B280/4007 R05C201/02A R05C225/08 Y02B10/30 Y02E10/72J Y02E10/74

US class: 415/122.1 415/4.2 415/4.4 415/42 415/907 416/132.00B 416/132B 416/146R 416/169R 416/170.00R 416/170R 416/197.00A 416/197.00AP 416/197.00R 416/197A 416/197R 416/204.00R 416/204R 416/243 416/DIG.2 416/DIG.9 440/8

[Classification Explorer](#)

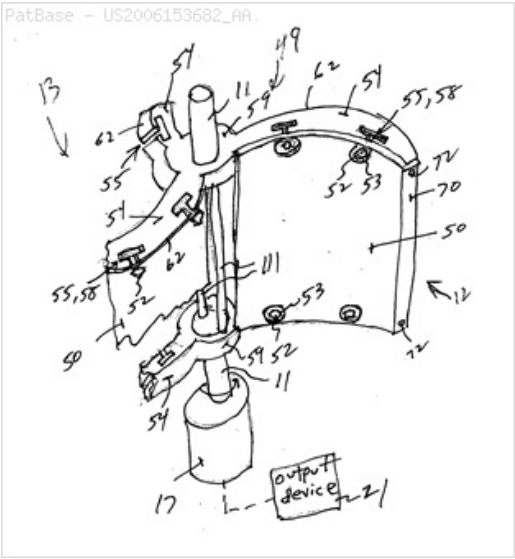
Cited documents: WO04113721 A1, USD523948 S1, US7115066 BA, US7008171 BA, US6916217 BA, US6808366 BB, US6779415 BB, US6616402 BB, US6608397 BB, US6428275 BA, US6293835 BB, US6270308 BA, US6261138 BA, US6172429 BA, US6172429 B1, US6030045 A, US5984814 A, US5506453 A, US5083039 A, US4964822 A, US4838757 A, US4830570 A, US4813366 A, US4784568 A, US4715776 A, US4684817 A, US4522600 A, US4371346 A, US4362470 A, US4359311 A, US4347039 A, US4287816 A, US4274011 A, US4245958 A, US4191507 A, US4156580 A, US3212470 A, US2742097 A, US2677344 A, US2007963 A, US2005186073 AA, US2004265116 AA, US2002131864 AA, US1935097 A, US1768765 A, US1766765 A, US1697574 A, US1650702 A, RU2101553 C1, JPS58187587, JPS5569768, JP9287549 A2, JP58187587 A2, JP55069768 A2, JP11294313 A2, GB244414 A, DE4016622 A1,

Forward Citations: WO17180829, WO16030821, WO14195640, WO13163313, WO11109611, WO11073588, WO11014224, WO11007274, WO10129077, WO09150163, WO09094602, WO07129299, WO07129299, US9982655, US9896386, US9863394, US9752555, US9739153, US9494136, US9382165, US9322392, US9133815, US9051918, US8926261, US8905704, US8890346, US8872375, US8864440, US8814495, US8779616, US8672633, US8450872, US8358030, US8317480, US8297910, US8257018, US8226375, US8070449, US7976267, US7960852, US7948110, US7893556, US7880322, US7798766, US7744338, US7696635, US7397144, US2016169196, US2015285219, US2015285208, US2015285078, US2013294918, US2013287570, US2013028723, US2012301301, US2012301297, US2012192514, US2012121416, US2012014786, US2011131364, US2011236216, US2011215738, US2011176919, US2011171040, US2011116930, US2011070068, US2011070066, US2011027089, US2011006542, US2010196153, US2010054910, US2009285689, US2009269209, US2009185905, US2009180884, US2008246284, US2008217924, US2008191487, NL1037011, JP2011094582, ITBO20090346, GB2550349, FR3006718, FR2969224, FR2954399, FR2930302, EP3214303, DE102012014627, CN102510947, CN102128130,

Abstract:

A Savonius vertical axis wind **turbine** rotor is versatile, simple and easy to construct and assemble, and efficient. The rotor includes at least three spokes, at least two vanes, and fasteners. Each spoke (which may be laser cut from aluminum plate) includes a hub having a substantially central opening, typically two or three at least partially arcuate ribs substantially integral with the hub and extending substantially radially outwardly from the hub with inner and outer surfaces, and a plurality of channels defined in at least one surface (preferably the outer surface) of each rib. The vanes are of sheet material (e. g. aluminum or polycarbonate) generally conforming to an inner or outer surface of a rib and have openings operatively aligned with the channels. First fasteners pass through the openings into the channels and cooperate with second fasteners provided within the

channels to securely hold the vanes to the ribs; the fasteners are preferably removable. The hub may be connected to a shaft of the rotor/**turbine** in a number of different ways. In a preferred way, each hub defines a clamp which cooperates with a shaft so that the hub is securely affixed to the shaft. The clamp includes a substantially radial slot in the hub communicating with the central opening, first and second fastener receiving elements on opposite sides of the slot and fixed to the hub, and a fastener extending between the fastener receiving elements to narrow or close the slot. Preferably the curved vanes generally conform to the outer surfaces of the ribs, and the vanes overlap the central opening so that there is spillover from one vane to the next when the rotor is rotated by wind.



6) Family number: 50074168 (DE102010023597A1)

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Title: WIND POWER PLANT FOR PRODUCING ELECTRICAL POWER, HAS CONTINUOUS CABLE HELD IN REGION BEFORE OR AFTER CIRCULATION ROLLERS BY SUPPLY DEVICE IN DESIRED HEIGHT AND SIDE SPACING, WHERE ENERGY PRODUCED BY PLANT IS TAPPED TO ONE OF ROLLERS

Priority: DE201010023597 20100607

Family:

Publication number	Publication date	Application number	Application date
DE102010023597 A1	20111208	DE201010023597	20100607

Probable Assignee: FOCKE CHRISTIAN

Assignee(s):(std): FOCKE CHRISTIAN

Assignee(s): FOCKE

Inventor(s):(std): FOCKE CHRISTIAN

International class (IPC 8-9): F03D5/02 F03D9/00 (Advanced/Invention)

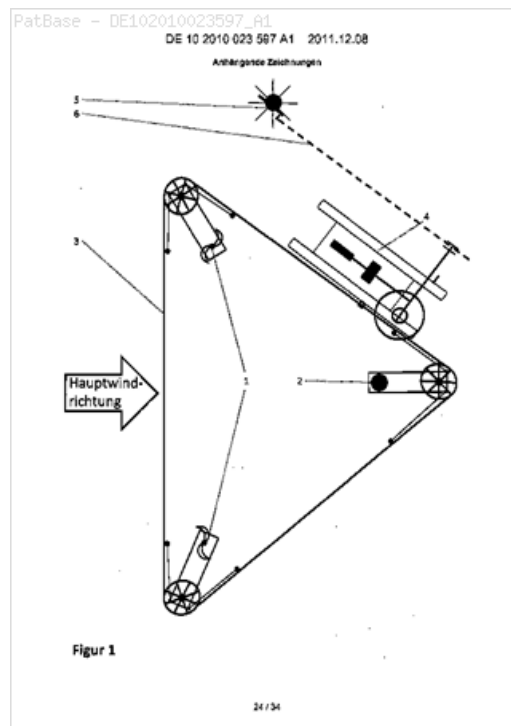
CPC: F03D5/02 F03D5/04 F05B2240/201 F05B2240/231 Y02E10/70

European class: F03D5/02 F03D5/04 R05B240/201 R05B240/231 Y02E10/70

[Classification Explorer](#)

Cited documents: DE4120908 C2, DE4033078 A1, DE3427155 A1, DE3123287 A1, DE102008046117 A1, DE102005062516 A1

Abstract:
The plant has vehicles (4) equipped with Flettner rotors and fastened to a continuous cable (3) around two circulation rollers. The vehicles automatically support lifting bodies using wheels. A position of the continuous cable is fixed. The continuous cable is held in a region before or after the circulation rollers by a supply device in desired height and side spacing. A path of vehicles is not firmly predefined and approximately determined from characteristics of the continuous cable. Energy produced by the plant is tapped to one of the circulation rollers.



7) Family number: 59292171 (WO15073084A1)

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Title: HYBRID CO-AXIAL SHAFT IN SHAFT TRANSMISSION USING PLANETARY GEAR SET FOR MULTIPLE SOURCES OF TORQUE

Priority: US20130867927P 20130820

Family:

Publication number	Publication date	Application number	Application date
WO15073084 A1	20150521	WO2014US51948	20140820

Probable Assignee: UNIV COLORADO REGENTS

Assignee(s):(std): UNIV COLORADO REGENTS

Assignee(s): THE UNIV OF COLORADO A BODY CORPORATE ; THE UNIV OF COLORADO A BODYCORPORATE

Inventor(s):(std): KOSTER JEAN NICOLAS ; KUTIL GAVIN ; SOIN GAURAVDEV S ; PACKARD COREY ; KREUTER ARTHUR ; DRAKE TYLER

Agent(s): SCULL PETER B

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): B60K6/365 (Advanced/Invention)

CPC: B60K6/365 B60K6/383 B60K6/48 F16H3/724 Y02T10/6221

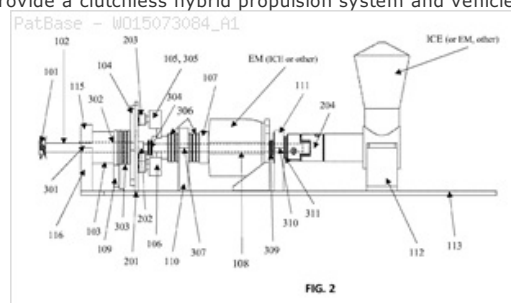
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Cited documents: US6751960 BB, US6010423 A, US2012248851 AA, US2011281679 AA, US2011197849 AA, US2006063638 AA, US2005176542 AA,

Forward Citations: WO17106617, WO17072713, US9994305, US10086933,

Abstract:

A drive system for a vehicle includes two torque sources, such as engines/motors that are each coupled with the shaft of a power transfer device providing propulsion of the vehicle via a planetary gear system; wherein the drive shaft of the second torque source is hollow and the drive shaft of the first torque source extends within the first drive shaft coaxially to each other and the power transfer device; wherein both drive shafts connect with the planetary gear system; and wherein the first drive shaft and the second drive shaft can optionally interface via one-way bearings to provide a clutchless hybrid propulsion system and vehicle.



Title: TERRESTRIAL POWER AND PROPULSION FROM NUCLEAR OR RENEWABLE METAL FUELS WITH MAGNETOHYDRODYNAMICS

Priority: US20110523601P 20110815 US20120584467 20120813 US20120584574 20120813
WO2012US50617 20120813

Family:

Publication number	Publication date	Application number	Application date
IL237193 A0	20150430	IL20120237193	20120813
US2013042594 AA	20130221	US20120584467	20120813
US2013259186 AA	20131003	US20120584574	20120813
US9249757 BB	20160202	US20120584467	20120813
WO13025625 A1	20130221	WO2012US50617	20120813
WO13070292 A2	20130516	WO2012US50621	20120813

Probable Assignee: ZAUDERER BERT

Assignee(s):(std): BERT ZAUDERER ; ZAUDERER BERT

Inventor(s):(std): ZAUDERER BERT

Inventor(s): BERT ZAUDERER

Agent(s): ANDREW M; ROBERTS MLOTKOWSKI SAFRAN AND COLE PC; CALDERON ANDREW M

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
(IPC 8-9): C01B C01F3/02 F02G F02G3/00 F02K9/24 F02K9/70 G21C1/07 H02K44/08 (Advanced/Invention); C01B F02G (Subclass/Invention)

CPC: H02K44/08 F02K9/70 F02K9/24 G21C1/07

US class: 1/1 376/318 60/218

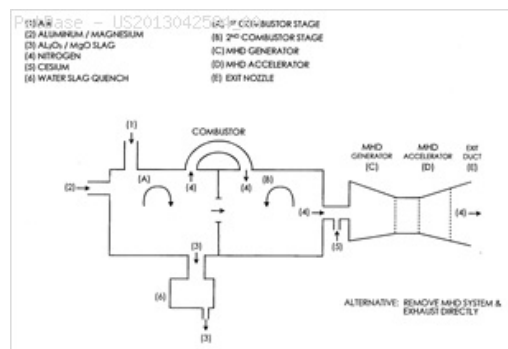
[Classification Explorer](#)

Cited documents: WO03078540 A2, US8337613 BB, US8277543 BB, US7553463 BB, US7435400 BB, US7282189 BB, US7247285 BB, US7047748 BB, US6722295 BB, US6453830 BA, US6440193 BA, US6048510 A, US5428653 A, US5211006 A, US4851722 A, US4847525 A, US4765258 A, US4694729 A, US4624191 A, US4345173 A, US4200815 A, US3986925 A, US3480806 A, US3359436 A, US3308622 A, US2801901 A, US2504357 A, US2012137877 AA, US2012058042 AA, US2012005802 AA, US2011173139 AA, US2009021010 AA, US2007089423 AA,

Forward Citations: US9793010, US9786391, US9782718, CN105117570,

Abstract:

A propulsion system is disclosed that uses metal fuel particles heated to a range from 3000 degrees Kelvin to 6000 degrees Kelvin by reaction with oxygen in air inside a cyclone combustor to form metal oxides that are retained and removed from the combustor for re-conversion to metal, while nitrogen in the air is heated to the temperatures that on supersonic exhaust propels 50,000 ton monohull ships to from 50 to 100 knots. The ship can accelerate by electromagnetic force from a MHD generator-accelerator rendered electrically conducting by alkali metal seed injection into the gas. Also disclosed are 10 MW to 1000 MW Closed Cycle MHD power plants fired by natural gas into a top half of a falling pebble bed heat exchanger that transfers 2000 degrees Kelvin to 3000 degrees Kelvin heat to a noble or diatomic gas in a bottom half of the exchanger that on exit is seeded with an alkali metal rendering the gas conducting.



Title: AIRSHIP INCLUDING AERODYNAMIC, FLOATATION, AND DEPLOYABLE STRUCTURES

Priority: US20110470025P 20110331 EP20120712835 20120326 US20120430010 20120326
WO2012US30562 20120326 US20130058410 20131021 US20160242223 20160819
US20170675046 20170811

Family:

Publication number	Publication date	Application number	Application date
AU2012236872 AA	20121004	AU20120236872	20120326
AU2012236872 BB	20170202	AU20120236872	20120326
CA2830799 AA	20130919	CA20122830799	20120326
DE602012005307 D1	20150402	DE201260005307T	20120326
EP2691295 A2	20140205	EP20120712835	20120326
EP2691295 B1	20150218	EP20120712835	20120326
ES2537182 T3	20150603	ES20120712835T	20120326
HK1193585 A1	20151218	HK20140107025	20140710
HK1193585 A1	20140926	HK20140107025	20140710
HK1193585 B	20151218	HK20140107025	20140710
TR201505980 T4	20150622	TR20150005980T	20120326
US2012248241 AA	20121004	US20120430010	20120326
US2014231580 AA	20140821	US20130058410	20131021

US2016355248 AA	20161208	US20160242223	20160819
US2018050785 AA	20180222	US20170675046	20170811
US8596571 BB	20131203	US20120430010	20120326
US9745042 BB	20170829	US20160242223	20160819
WO12135117 A2	20121004	WO2012US30562	20120326
WO12135117 A3	20130103	WO2012US30562	20120326

Probable Assignee: LTA CORP

Assignee(s):(std): GOELET JOHN ; JG ENTREPRENEURIAL ENTPR LLC ; LTA CORP

Assignee(s): LTA CORP NEW YORK ; JG ENTREPRENEURIAL ENTERPRISES LLC

Inventor(s):(std): GOELET JOHN

Inventor(s): GOELET JOHN WASHINGTON ; JOHN GOELET

Agent(s): PIZZEYS PATENT AND TRADE MARK ATTORNEYS; PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; KIRBY EADES GALE BAKER; NORTON ROSE FULBRIGHT CANADA LLP SENCRL SRL; WITTMANN HERNANDEZ PATENTANWALTE PARTNERSCHAFT MBG; JENNINGS NIGEL ROBIN; FINNEGAN EUROPE LLP; LAZCANO JESUS; MARKS AND CLERK; HANDE MUMCUOGLU; FINNEGAN HENDERSON FARABOW GARRETT AND DUNNER LLP; LAVENUE LIONEL M ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PZ PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TZ TM TN TR TT UA UG US UZ VY VN ZA ZM ZW

International class (IPC 8-9): B64B B64B1/00 B64B1/02 B64B1/06 B64B1/12 B64B1/14 B64B1/20 B64B1/22 B64B1/34 B64B1/58 B64B1/60 B64B1/68 B64C B64C25/02 B64C25/32 B64C25/56 (Advanced/Invention); B64B B64C (Subclass/Invention)

CPC: B64B1/58 B64B1/68 B64B1/00 B64B1/20 B64B1/06 B64B1/12 B64B1/14 B64B1/22 B64B1/34 B64B1/60 B64B2201/00 B64C25/32 B64C25/56 B64D2211/00 Y02T50/55

European class: B64B1/06 B64B1/12 B64B1/14 B64B1/20 B64B1/22 B64B1/34 B64B1/60 B64B1/68 B64C25/32 B64C25/56 L64B201/00 L64D211/00

US class: 244/13 244/30 244/4R

[Classification Explorer](#)

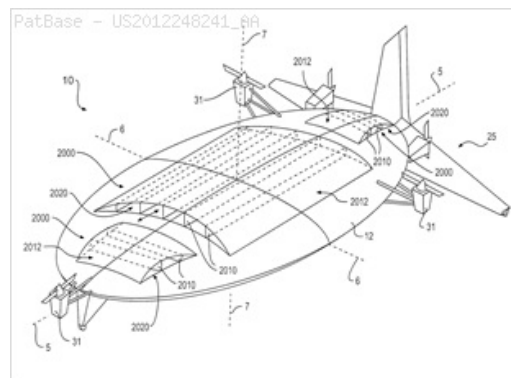
Cited documents: WO9967131 A1, WO9831589 A1, WO9829303 A2, WO9828188 A1, WO9749606 A1, WO9715492 A2, WO9638340 A1, WO9532894 A1, WO9532893 A1, WO9527652 A1, WO9522486 A1, WO9514607 A1, WO9505307 A1, WO9324364 A2, WO9313979 A1, WO9206002 A1, WO07065649 A2, WO07045091 A1, WO07037932 A2, WO07036038 A1, WO06137880 A2, WO06085919 A2, WO06061617 A1, WO05007508 A1, WO05002960 A1, WO04087499 A2, WO04074091 A2, WO04000642 A1, WO03097451 A1, WO03097450 A1, WO03074356 A2, WO03055746 A1, WO03055745 A1, WO03047967 A1, WO03021291 A1, WO0194172 A1, WO0168447 A2, WO0142082 A1, WO0073142 A2, WO0048902 A1, USRE28454 E, USD583294 S1, USD424508 S1, USD418804 S1, USD309887 S1, USD307884 S1, USD307131 S1, USD305418 S1, USD280194 S1, USD274999 S1, USD213731 S1, US95798910, US8342442 BA, US8336810 BB, US8286910 BB, US8286909 BB, US8177161 BB, US8177159 BB, US8033497 BB, US7866601 BB, US7825830 BB, US7490794 BB, US7264202 BB, US7216069 BB, US7159817 BB, US7156342 BB, US7137592 BB, US7108228 BA, US7055777 BB, US7040572 BB, US6966523 BB, US6892118 BA, US6885313 BB, US6880783 BB, US6702229 BB, US6659838 BA, US6648272 BA, US6577929 BB, US6565037 BA, US6549179 BB, US6439508 BA, US6328257 BA, US6315242 BA, US6311925 BA, US6302357 BA, US6293493 BA, US6286783 BA, US6231007 BA, US6196498 BA, US6164589 A, US6019312 A, US6010093 A, US5906335 A, US5823468 A, US5755402 A, US5675327 A, US5614897 A, US5516060 A, US5368256 A, US5351911 A, US5348251 A, US5281960 A, US5240206 A, US5170963 A, US5143322 A, US5096141 A, US5090637 A, US4914976 A, US4901948 A, US4685640 A, US4583094 A, US4461436 A, US4326681 A, US4298175 A, US4269375 A, US4085912 A, US3976265 A, US3971533 A, US3970270 A, US3946364 A, US3820744 A, US3706433 A, US36616310, US36612510 P, US3586266 A, US3580636 A, US3572611 A, US3529283 A, US3477168 A, US3467343 A, US3432120 A, US3395877 A, US3337845 A, US3321158 A, US3176937 A, US2935275 A, US2563263 A, US2379355 A, US2365827 A, US2286014 A, US22235508, US2014231580 AA, US2012212228 AA, US2012199693 AA, US2012018571 AA, US2011174922 AA, US2011163200 AA, US2011051041 AA, US2010320314 AA, US2010276546 AA, US2010252687 AA, US2010102164 AA, US2010076628 AA, US2010067118 AA, US2010044506 AA, US2009321557 AA, US2009200416 AA, US2009189012 AA, US2009109064 AA, US2008179454 AA, US2008087762 AA, US2007295859 AA, US2007075184 AA, US2007034740 AA, US2006284002 AA, US2006261213 AA, US2006227013 AA, US2006151666 AA, US2006065777 AA, US2006060695 A, US2006016930 A, US2005277359 AA, US2004162000 AA, US2003234320 AA, US2003127557 AA, US2003023355 AA, US2003001044 AA, US2002109045 AA, US2002003189 AA, US2001002686 AA, US1944467 A, US1685458 A, US1350211 A, US1027590 A, UA55928 A, UA32397 A, UA10870 A, SU1799335 D, RUSU1799335, RU40822 S, RU37568 U1, RU37568, RU2250122 C1, RU2249536 C1, RU2196703 C2, RU2141911 C1, RU2114027 C1, RU2111147 C1, RU2111146 C1, RU2098318 C1, RU2092381 C1, RU2070136 C1, RU2028249 C1, RU20114027 C1, RU2009073 C1, RU1799335 C, JP52145999 A2, GB2366274 A1, GB2359534 A1, GB2300010 A1, GB2278815 A1, GB2275036 A1, GB2250007 A1, GB2197276 A1, GB2055728 A1, FR2830838 B1, FR2630397 A1, EP1770009 A2, EP1529726 A2, EP1451063 B1, EP1294608 B1, EP1292474 B1, EP1160156 A2, EP1070008 B1, EP0745045 B1, EP0729423 B1, EP0714362 B1, EP0619792 B1, EP0503801 A2, EP0291355 A2, EP0282425 A1, EP0095763 A2, DE3508101 A1, DE2640433 A1, DE210003 A, DE20204023 U1, DE20204023 U, DE20116152 U1, DE20116152 U, DE10252911 A1, DE10252910 A1, DE10252909 A1, DE10252908 A1, DE10252896 A1, DE10252895 A1, DE10252695 A1, DE10228048 A1, DE10226868 A1, DE10216480 A1, DE10210542 A1, DE10210541 A1, DE10201133 A1,

DE102005013529 A1

DE10148590 A1, DE10148589 A1, DE10143589 A1, DE10139877 A1, DE10121854 C1, DE10120232 A1, DE10058072 A1, DE10011319 A1, CA1054124 A1,

Forward Citations: WO18042610, WO17207666, WO17200609, WO16153720, WO16138173, WO16081754, USD808329, USD798390, USD743867, USD743319, USD727242, USD725575, USD725028, USD713320, US9889930, US9868524, US9852644, US9845141, US9802691, US9745042, US9694894, US9612354, US9604726, US9604715, US9463861, US9290237, US9193480, US8812176, US8596570, US2018099745, US2017137104, US2016355248, US2016307448, US2016229530, US2016229518, US2016023747, US2015203184, US2014379178, US2014339356, US2014158823, US2012061516, US10106274, US10032125, US10005541, TWI596042, RU2670738, RU2670738, FR3062370, EP3150483, DE102015000703, CN107635868, CN106184692, CN105235872,

Abstract:
An airship is provided. The airship includes a hull configured to contain a gas, at least one propulsion assembly coupled to the hull and including a propulsion device, and at least one aerodynamic component including a plurality of fairing structures including one or more slats, wherein the at least one aerodynamic component is associated with the hull and is configured to direct airflow around the airship.



10) Family number: 11495197 (WO0006450A1)

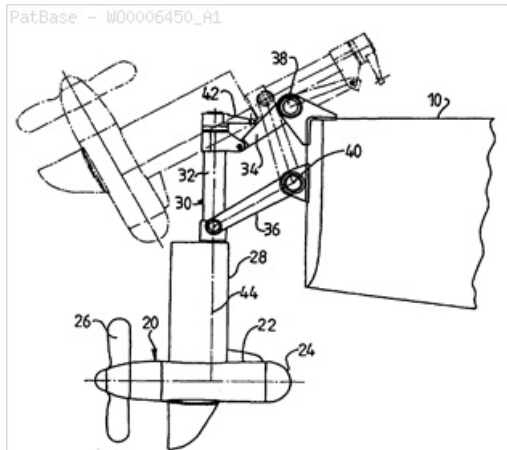
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Title: BOAT OR VESSEL WITH ELECTRIC DRIVE
Priority: FR19980009683 19980729 WO1999FR01710 19990713
Family:

Publication number	Publication date	Application number	Application date
AT234757 E	20030415	AT19990929479T	19990713
AU199952638 A1	20000221	AU19990052638	19990713
AU199952638 A5	20000221	AU19990052638	19990713
AU209952638 A1	20000221	AU19990052638	19990713
AU758503 B2	20030320	AU19990052638	19990713
CA2338163 AA	20000210	CA19992338163	19990713
DE69906086 D1	20030424	DE19996006086	19990713
EP1100717 A1	20010523	EP19990929479	19990713
EP1100717 B1	20030319	EP19990929479	19990713
FR2781755 A1	20000204	FR19980009683	19980729
FR2781755 B1	20000929	FR19980009683	19980729
WO0006450 A1	20000210	WO1999FR01710	19990713

Probable Assignee: ALTERNATIVES EN
Assignee(s):(std): ALTERNATIVES EN ; ALTERNATIVES EN LA ROCHELLE ; BOULY CHRISTIAN
Assignee(s): ALTERNATIVES ENERGIES ; ALTERNATIVES ENERGIES LA ROCHELLE
Inventor(s):(std): BOULY CHRISTIAN
Inventor(s): CHRISTIAN BOULY
Agent(s): GRIFFITH HACK; ROBIC
Designated states: AT AU BE CA CH CY DE DK ES FI FR GB GR IE IT JP LI LU MC NL PT SE US
International class (IPC 8-9): B63H20/00 B63H23/24 (Advanced/Invention); B63H20/00 B63H23/00 (Core/Invention)
International class (IPC 1-7): B63H21/17 B63H23/24
CPC: Y02T70/5245 B63H5/125 B63H20/00 B63H20/10 B63H21/17 B63H2005/1258 B63H2021/171 B60L11/182 B60L2200/32 Y02T10/7005 Y02T10/7072 Y02T90/122 Y02T90/14 B63B2009/007
European class: B63H20/00T B63H23/24
[Classification Explorer](#)
Cited documents: US5669794 A, US5403220 A, US4406630 A, US4114555 A, US4075970 A, FR2484356 A1, FR2322780 A1, CH637584 A, CH637584,
Forward Citations: WO17129572, WO17125153, WO12034920, WO12034920, WO09126096, US9919784, US9376168, US9073607, US9022342, US2012298833, TWI423902, NL2014873, JP2013542115, JP2013537142, EP1806279, DE202016101681, DE102017105904, DE102010040904, DE102005004985, CN103140415, CN103140415, CN103108801, CN103108801, CN102015438,

Abstract:
The invention concerns a boat or vessel with electric drive comprising at least an electric motor mounted in a sealed submersible and adjustable casing (22), the electric motor being of the alternating current type and with high rotating speed and housed in the casing (22) with a power inverter powered by on-board batteries, and a reduction gear for driving a **propeller** (26) mounted on an output shaft of the casing (22). The invention is particularly useful for electrically driving small or medium sized boats and vessels.



11) Family number: 58394205 (US2015027125A)

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Title:

Priority:

Family:

Probable Assignee:

Assignee(s):(std):

Inventor(s):(std):

International class (IPC 8-9):

CPC:

US class:

Classification Explorer

Cited documents:

Forward Citations:

PROCESS FOR HARVESTING, STORING, AND USING RENEWABLE ENERGY TO PROPEL AND POWER BOATS AND SHIPS, AND MAXIMIZE THEIR AVERAGE SPEED

US20130857762P 20130724US20140339649 20140724

Publication number

Publication date

Application number

Application date

US2015027125 AA

20150129

US20140339649

20140724

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RAJ ANIL

B63B35/00 B63B39/00 B63G8/00 B63H1/04 B63H19/00 B63H19/02 B63H21/17 B63H21/21 B63H9/02 F03D9/00 (Advanced/Invention)

B63H9/02 B63H19/02 B63H21/17 B63H2021/003 B63B2035/007 B63G2008/004 B63H21/21 F03D1/0616 B63B2003/382 Y02E10/721 Y02E10/725 Y02T70/5272 Y02T70/58 Y02T70/59 Y02T90/38 F03D9/007 F03D9/11 F03D9/25 F03D9/32

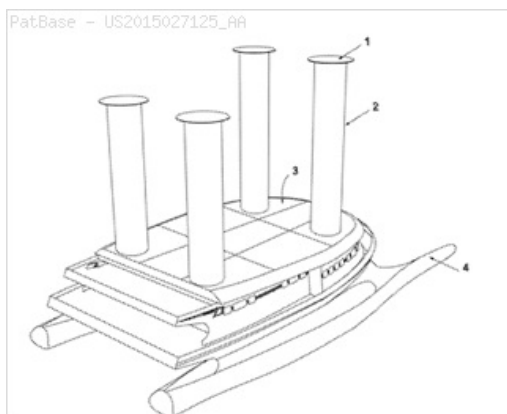
60/720

US8973511 BB, US8963362 BB, US8875643 BB, US8405242 BB, US8174135 BA, US8070544 BB, US7789723 BB, US6610193 BB, US5863228 A, US4993348 A, US4398895 A, US4371346 A, US2014042975 AA, US2013008164 AA, US2012289103 AA, US2012144828 AA, US2011139299 AA, US2006208570 AA, US2006055175 AA, US1181988 A,

US10118696.

Abstract:

A boat or ship (marine vessel) can be powered and propelled by using wind or **solar** energy. This propulsion results in the forward movement and six degrees of motion (roll, heave, pitch, yaw, surge, and sway) of the marine vessel. These motions have kinetic energy. This invention capitalizes on the fact that the **solar** wind and wave energy are cyclical by nature. The present invention enables the vessel to store energy harvested from these energy sources during periods when levels of energy is available from wind, **solar**, or the motion of the vessel in waves. This invention makes this stored energy available for use during periods when the external natural sources of energy (wind, wave, or **solar**) are not available in adequate quantities to maintain a reasonable speed of advance for the marine vessel. The harvesting of the energy during high energy cycles, storing it and using it when needed in this invention allows a marine vessel to get maximum speed of advance over a course. In this invention the marine vessel can maintain faster average speed without reliance on any fossil or chemical fuel and by only using renewable energy sources. In this invention the vessel is normally driven by wind channeling methods like canvas or foil sails or Flettner rotors. In addition to this, the vessel can be propelled by propulsion thrusters such as **propellers**, rim driven thrusters, azimuthing drives, water jets or other means of thrusting and propelling the vessel. These propulsion devices are driven by regenerative electric motors using stored electric energy in batteries on the vessel. The energy stored in the battery bank is used to provide supplemental or primary propulsion during cyclical periods when natural sources of wind, wave or **solar** energy are low. These same thrusters and their electric motors work in reverse to generate and harvest energy when wind levels are high and as the marine vessel is moving forward at higher speeds while being propelled by wind energy. In this invention the batteries, which are dense and heavy, to store this energy, are secured in the bottom of the marine vessel also serve as ballast to keep the vessel upright. This serves to lower the marine vessel's center of gravity to get the maximum hull stability for safety. This also helps the vessel channel maximum available wind energy to propel the vessel and harvest energy whenever stronger winds permit.



12) Family number: 52067233 (ES2387784A)

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Title: VEHICULO DE EFECTO SUELO. GROUND EFFECT VEHICLE. (Machine translation)
Priority: ES20100031832 20101213
Family:

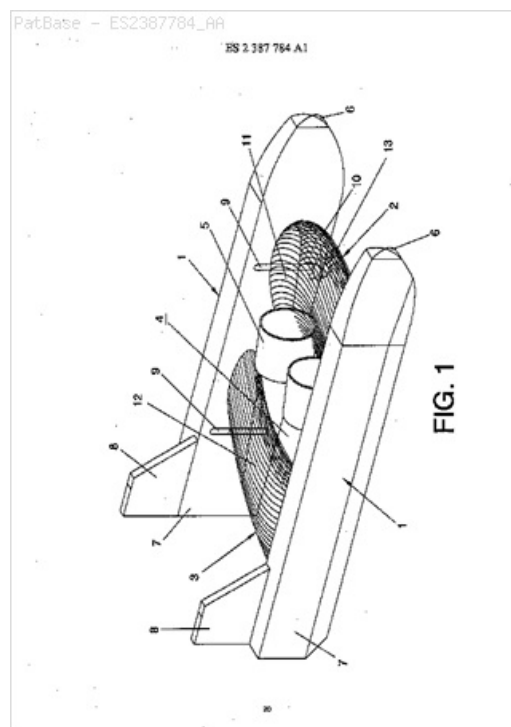
Publication number	Publication date	Application number	Application date
ES2387784 AA	20121001	ES20100031832	20101213
ES2387784 BA	20130820	ES20100031832	20101213

Probable Assignee: MIDDLETON ANDREW KORSAK
Assignee(s):(std): MIDDLETON ANDREW KORSAK
Assignee(s): ANDREW KORSAK MIDDLETON
Inventor(s):(std): MIDDLETON ANDREW KORSAK
Inventor(s): ANDREW KORSAK MIDDLETON
Agent(s): CARPINTERO MARIO
International class B60V1/08 (Advanced/Invention)
(IPC 8-9):
CPC: B60V1/08
[Classification Explorer](#)
Cited documents: US4926773 A, US3662854 A, SU1806062 D, DE4217374 A1, DE102009004239 A1

Abstract:

Source: ES2387784A [ES] Vehiculo de efecto suelo, que comprende dos cascos (1) en configuracion de **catamaran**, entre los que se situa un ala delantera (2) y un ala trasera (3) en configuracion tandem, quedando entre dichas alas (2, 3) un espacio central (4) hueco, de forma que el ala delantera (2) esta curvada hacia la parte delantera del vehiculo mientras que el ala trasera (3) esta curvada hacia la parte trasera del vehiculo, teniendo cada ala (2, 3) capacidad para modificar individualmente su posicion transversal e inclinacion respecto a los cascos (1), pudiendo girar respecto a direcciones de rotacion perpendiculares a los cascos (1), y comprendiendo el vehiculo medios de propulsion (5) capaces de generar propulsion del vehiculo, lo que permite una alta estabilidad y maniobrabilidad del vehiculo, al tiempo que su coste es reducido.

Machine translation: Vehicle ground effect, comprising two hulls (1) in **catamaran** configuration, between which is located a front wing (2) and a rear wing (3) in tandem configuration, being between said flanges (2, 3) a central space (4) hollow, so that the front wing (2) is curved towards the front of the vehicle while the rear wing (3) is curved towards the rear of the vehicle, each wing (2, 3) ability to individually change its transverse position and tilt with respect to the hulls (1), being rotatable with respect to directions of rotation perpendicular to the hulls (1), and the vehicle comprising propulsion means (5) capable of generating vehicle propulsion, allowing high stability and maneuverability of the vehicle, while the cost is reduced.

**13) Family number: 29884275** (US2003201645A)

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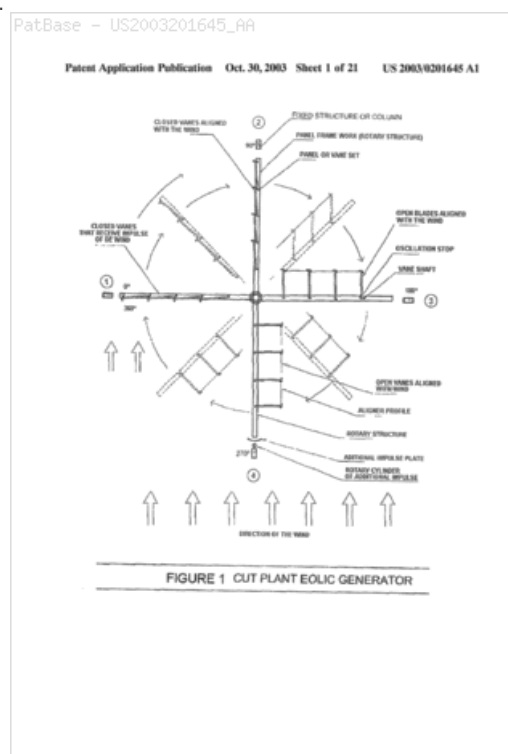
Title: EOLIC MARINE ELECTRICAL GENERATOR GEEM
Priority: PE20000000689 20000711
Family:

Publication number	Publication date	Application number	Application date
PE00902002 A1	20020210	PE20000000689	20000711
US2003201645 AA	20031030	US20010903379	20010711
US6734576 BB	20040511	US20010903379	20010711

Probable Assignee: SAAVEDRA PACHECO PEDRO
Assignee(s):(std): SAAVEDRA PACHECO PEDRO

Assignee(s): PACHECO PEDRO SAAVEDRA
Inventor(s):(std): SAAVEDRA PACHECO PEDRO ; PACHECO PEDRO SAAVEDRA
International class (IPC 8-9): B60L8/00 F03B17/06 F03D3/06 F03D7/00 (Advanced/Invention); B60L8/00 F03B17/00 F03D3/00 (Core/Invention)
International class (IPC 1-7): F03B13/00 F03B13/10 F03B13/12 F03D3/06 F03D7/00 F03D9/00 H02P9/04
CPC: B63H13/00 B60K2016/006 B60L8/00 F03B17/065 F03D3/067 F05B2240/941 F05B2260/72 Y02B10/30 Y02E10/28 Y02E10/74 Y02T10/646 Y02T10/7083 Y02T10/90 Y02T70/58 B60L2200/26 F03D9/30 F03D13/10 F03D9/25 Y02E10/728
European class: B60K16/00 B60L8/00 B63H13/00 F03B17/06C3 F03D3/06E6 F03D9/00C L60K16/00B L60L200/26 R05B240/941 R05B260/72 Y02B10/30 Y02E10/28 Y02E10/74 Y02T10/64D8 Y02T10/70J2B Y02T10/90 Y02T70/58
US class: 290/53 290/54 290/54P 290/55
[Classification Explorer](#)
Cited documents: WO9747821 A1, WO9409272 A1, WO8910483 A2, US921940 A, US6551053 BA, US6534881 BA, US6508191 BA, US6498402 BB, US6448669 BA, US6448668 BA, US6294844 BA, US6179563 BA, US6100600 A, US6072245 A, US6069409 A, US5882143 A, US588143 A, US5664418 A, US556396 A, US5375968 A, US5131805 A, US4993348 A, US4843249 A, US4684817 A, US4679985 A, US4368392 A, US4366387 A, US4346305 A, US433835 A, US4313059 A, US4301377 A, US4248044 A, US4191507 A, US4134710 A, US4119863 A, US4115027 A, US4049300 A, US4048947 A, US4047833 A, US4001596 A, US3995170 A, US3978345 A, US3944839 A, US3920354 A, US1804493 A, US1649644 A, US1371204 A, US1046026 A, ES92662, ES494227,
Forward Citations: WO12172349, WO11091076, WO11056425, WO11028187, WO11028187, WO10145044, WO10096010, WO07027544, WO06131935, US9777707, US9651018, US9359991, US9328714, US9163607, US8884458, US8829704, US8791588, US8688294, US8664784, US8657575, US8614523, US8564151, US8508065, US8226347, US8120196, US8016544, US7986054, US7964984, US7948108, US7944075, US7893556, US7816802, US7786612, US7681512, US7663263, US7652388, US7649275, US7633177, US7619320, US7612463, US7604454, US7602076, US7504742, US7482707, US7471006, US7453166, US7436084, US7425776, US7397144, US7365446, US7298056, US6956300, US6791206, US2018258906, US2017204839, US2017167467, US2017138331, US2016237984, US2015118020, US2014333071, US2013234440, US2013060402, US2013020806, US2011211960, US2011187112, US2011175366, US2011142625, US2011101697, US2010283251, US2010244450, US2010201131, US2010187830, US2010187819, US2010096856, US2009196749, US2009110540, US2009096216, US2009091135, US2009091134, US2009072542, US2009066090, US2009058091, US2008296899, US2008169654, US2008169652, US2008116692, US2008110661, US2008078316, US2007296217, US2007278796, US2007241567, US2007187956, US2007160477, US2007152449, US2007055116, US2007046028, US2007007857, US2006220386, US2005082838, US2005029817, US2004183310, US2004164561, US2004131467, US10072641, US10060473, RU2562351, RU2552589, FR2869077, CN106979122, CN106979122, CN105179142, CN105179142, CN102052254,

Abstract:
In short, the Eolic Marine Electrical Generator "GEEM" is an extraordinary invention used for capturing the huge impulse force of water or wind, to generate mechanical energy and to transform the mechanical energy into electrical energy, clean and ecological, without consuming vital oxygen thanks to the invention of immense split, self-regulating panels, radially fixed in dihedral angle to a rotary central shaft, panels which capture by shock the inexhaustible energy of the wind, the waves or the ocean currents; or fixed on rotary or flying machines of high speed, with panels formed at the same time by oscillating vanes that at a certain time of a turn of 360 degrees will face the natural energy as a single group or panel, capturing therefrom the impulse force and converting it into rotary movement through the central rotary shaft. Said vanes in other rotation, by oscillation, will divide the panel and will align themselves with the natural vector, permitting its free passage, eliminating the turning resistance of the panel against water or wind and generating a constant rotation movement, independent of the direction of water or wind, and then transforming said mechanical energy into electrical energy by existing conventional means. The invention will allow men to renew their resources and to obtain electrical energy from anywhere in the planet such as cities, countryside, deserts, forests, mountains, seas, floating cities or spaces such as the Arctic and the Antarctic, neither polluting the environment, nor depending on costly networks or non-renewable inputs. The invention will also generate electrical energy on fleets, land vehicles or airship without consuming non-renewable fuel or destroying oxygen. Moreover, this invention replaces the internal combustion engines by eolic electrical motors, changing the scenery of the modern world and recovering the ozone lost in the Antarctic. And this invention will also be used when men in future colonize planets, without rivers or seas but with plenty of wind, to generate electrical energy without polluting this new vital space of the human race.



Title:	HEAT ENERGY RECAPTURE AND RECYCLE AND ITS NEW APPLICATIONS					
Priority:	US19840631321 19840719	US19840631322 19840719	US19860820082 19860121			
	US19880177599 19880405	US19880255719 19881013	US19880255657 19881013			
	US19890376002 19890815	US19900472753 19900131	US19910773680 19911008			
	US19910811470 19911218	US19930097655 19930727	US19950506335 19950725			
	US19970058062P 19970905	US19970999729 19971223	US19980137499 19980820			
	CA20022397847 20020812	CA20022404410 20020920	PH20040000148 20040325			
	US20050039624 20050120	US20050795835 20050727	WO2005US26793 20050727			
Family:	Publication number	Publication date	Application number	Application date		
	AP200704109 A0	20070831	AP20070004109	20050727		
	AU2005325208 AA	20060727	AU20050325208	20050727		
	AU2005325208 BB	20120329	AU20050325208	20050727		
	CA2397847 AA	20040212	CA20022397847	20020812		
	CA2404410 AA	20040320	CA20022404410	20020920		
	CA2599414 AA	20070823	CA20052599414	20050727		
	CN101146981 A	20080319	CN200580049207	20050727		
	EA200701538 A1	20081030	EA20070001538	20050727		
	EP1851418 A1	20071107	EP20050779535	20050727		
	EP1851418 A4	20090513	EP20050779535	20050727		
	IN05612DN2007 A	20070831	IN2007DN05612	20070719		
	US2005120715 AA	20050609	US20050039624	20050120		
	US2008155985 AA	20080703	US20050795835	20050727		
	US4756666 A	19880712	US19840631321	19840719		
	US4859146 A	19890822	US19880177599	19880405		
	US5027735 A	19910702	US19900472753	19900131		
	US5052902 A	19911001	US19860820082	19860121		
	US5056447 A	19911015	US19880255657	19881013		
	US5094595 A	19920310	US19890376002	19890815		
	US5435259 A	19950725	US19930097655	19930727		
	US5507943 A	19960416	US19910811470	19911218		
	US6293121 BA	20010925	US19980137499	19980820		
	US6327994 BA	20011211	US19970999729	19971223		
	US8051637 BB	20111108	US20050795835	20050727		
	WO06078315 A1	20060727	WO2005US26793	20050727		
	WO06078315 C1	20061102	WO2005US26793	20050727		
Probable Assignee:	CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATION TRUST					
Assignee(s):(std):	CHRISTIAN SCHOOL OF TECHNOLOGY ; CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATION TRUST ; CHRISTION SCHOOL OF TECHNOLOGY ; LABRADOR GAUDENCIO A ; LABRADOR GAUDENCIO AQUINO ; GAUDENCIO LABRADOR ; LABRADOR GAUDENCIO					
Assignee(s):	CHRISTION SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATION TRUST ; CHRISTION SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATI ; CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATI					
Inventor(s):(std):	LABRADOR GAUDENCIO A ; LABRADOR GAUDENCIO AQUINO ; CHRISTIAN SCHOOL OF TECHNOLOGY					
Inventor(s):	LABRADOR GAUDENCIO ; GAUDENCIO AQUINO LABRADOR ; CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE					
Agent(s):	ROGER SYN AND CO PATENT AND TRADE MARK ATTORNEYS; FURMAN AND KALLIO; OYEN WIGGS GREEN AND MUTALA LLP; GAUDENCIO AQUINO LABRADOR					
Designated states:	AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
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International class (IPC 1-7):	B01D61/10 B63B17/00 B63B35/00 B63B7/00 F01K23/10 F03D5/02 F03D5/04 F03G7/00 F04B35/00 F24F6/14 F28D5/00					
CPC:	B63H9/06 B63H9/1021 F05D2260/212 F01K27/00 F02C1/05 F03G7/00 Y02T50/672 Y02T50/676 B63B1/121 Y02W10/33 Y02W10/37 B63B1/107 B63B1/24 B63B39/06 B63B2039/067 B63G1/00 B63G8/30 B63H19/02 B63J1/00 C02F1/04 F05B2240/40 Y02T70/59 B63B35/00 B63B43/06 B63J3/00 E02B3/062 E02B2017/0091 F03B13/182 F03D5/04 F24F5/0035 F24F6/14 Y02B10/30 Y02B10/50 Y02E10/38 F28D5/00 B01D61/10 B63B35/44 B63B2035/446 B63B2035/4466 B64C31/04 B64C31/06 F03D5/00 F05B2240/921 F05B2240/922 F24F2001/0088 Y02B30/545 Y02E10/70 Y02E10/728 B63H9/10 F05B2210/18 Y02A20/131 Y02A20/144 Y02A10/14 F03D9/11 F03D9/25 F03D9/28 F03D80/30 F03D9/008 F03D9/10 F03D9/32 F03D9/255 B60K16/00 F03D13/20 Y02A20/141 Y02E10/725 Y02E60/15 Y02B10/70					
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US class:	114/102 114/267 114/382 114/39.1 114/39.2 114/39.26 114/39.29 114/39.31 210/136 210/170 210/259 210/321.87 244/153.00R 244/153R 244/24 405/76 415/5 416/8 417/330 417/332 60/39.01 60/506 60/618 60/618P 60/676 60/698 60/698P 60/772 62/304 62/310 62/314 623/40					
Classification Explorer						
Cited documents:	US6880344 BB, US6327994 BA, US6293121 BA, US5797274 A, US5775121 A, US5598719 A, US5497633					

A, US5435259 A, US5272879 A, US5168722 A, US4993348 A, US4829928 A, US4756666 A, US4738212 A, US4708078 A, US4694770 A, US4612868 A, US4598659 A, US4572962 A, US4562786 A, US4544331 A, US4540313 A, US4447738 A, US443641 A, US4358254 A, US4341177 A, US4313391 A, US4303834 A, US4302684 A, US4230060 A, US4206608 A, US4182128 A, US4175910 A, US4163905 A, US4160624 A, US4124182 A, US4118941 A, US4116151 A, US4115034 A, US4112864 A, US411252 A, US4111609 A, US4087209 A, US4052134 A, US3996741 A, US3937166 A, US3933110 A, US3846858 A, US3809507 A, US3730643 A, US3504988 A, US3326392 A, US3190545 A, US2454058 A, US2423720 A, US210573 A, US2028331 A, US1887316 A, US1526631 A, US1504057 A, US1266472 A, US1061091 A, US1046026 A, GB25234, GB219873 A, GB2131491 A1, GB2131490 A1, GB189425234 A, GB1588600 A, FR993473 A, FR975126 A, FR2523220 A1, FR2312666 A1, DE2836922 A1,

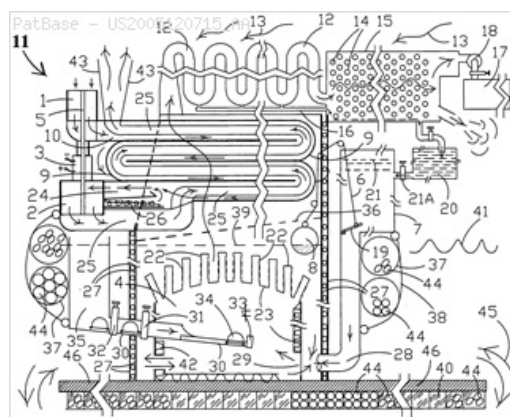
Forward Citations:

WO9604479, WO9510706, WO9421913, WO18138399, WO18102831, WO17138891, WO17131551, WO17044658, WO16176184, WO16154757, WO16130438, WO15083154, WO15049551, WO13150320, WO13150320, WO13063606, WO13052752, WO13052752, WO11121557, WO11024084, WO11024084, WO10151237, WO10096656, WO10096656, WO10043987, WO10043987, WO10000100, WO09118427, WO09059111, WO09058637, WO09052202, WO09052202, WO09003362, WO08124037, WO08072269, WO08054131, WO08031904, WO08006413, WO07065717, WO07027544, WO07000788, WO06117593, WO06113988, WO06078315, WO06028454, WO05064155, WO03092847, WO03092847, WO02072479, WO02063165, WO02056989, WO02056989, WO0141897, USD749231, USD747450, USD746966, USD746425, USD729925, USD729376, USD729375, USD729374, USD729373, USD729372, USD728770, USD728769, USD728092, USD718208, USD581438, US9995538, US9995006, US9988284, US9982677, US9970390, US9951991, US9938162, US9927136, US9926804, US9925973, US9921529, US9908096, US9903602, US9903222, US9897071, US9883763, US9841223, US9835131, 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Abstract:

What has been created is a plurality and a variety of processes and a variety of devices correspondingly supportive to each process, wherein, a new partnership between; (1) a heat absorbing radiator compressed air pipes/tubes and (2) a gas **turbine** engine or a reciprocating piston engine, -is used to recapture and reconvert the, otherwise wasted, heat energies expelled by engines, by factories, by smelting plants, by distillation plants, by chillers/coolers/freezers, by cooking ovens, by lamps/stoves, by trash burners, and the heat energies created by the **solar** heat on the desert/ocean water, -into electric power and finally into hydrogen-deuterium fuel, -by having the engine's tailpipes submerged in cold compressed air inside the heat absorbing radiator pipes in reverse air flow, to further drive and re-drive the same engine; wherein, in order to capture fusion heat energy the hydrogen bomb is detonated in the deep ocean to catch the flames by the water and the hot water is used to energize the compressed air inside the heat absorbing radiator pipes; wherein, in order to produce fusion energy, an abundant electric arc is passed across liquid deuterium or across gaseous deuterium by the electro-plasma torch and sparkplug in the internal combustion engine, and by detonating a dynamite inside a liquid deuterium; wherein diamond is produced by placing carbon inside the hydrogen bomb; and wherein, deuterium fusion flame is used first in smelting glass to large sizes before running an engine.



15) Family number: 42961307 (BE1017628A)

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Title: SHIP, COMPRISES FLOATING STRUCTURES WITH WATER FLOWING BETWEEN THEM FOR HARNESSING TO PRODUCE ENERGY SO THAT BOAT IS POWERED ENTIRELY USING RENEWABLE ENERGY RESOURCES

Priority: BE20070000273 20070601

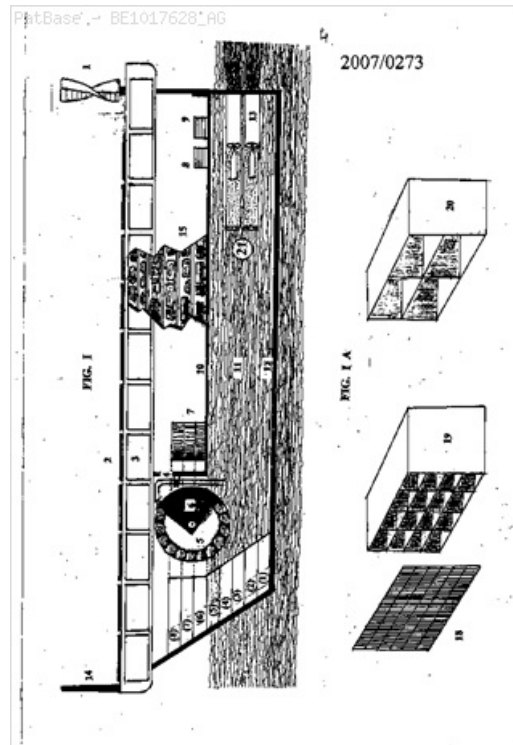
Family: **Publication number** **Publication date** **Application number** **Application date**

Probable Assignee: HENDRIKS PIETER JOZEF
Assignee(s):(std): HENDRIKS PIETER JOZEF
International class B63B1/00 B63H13/00 B63H19/00 B63H9/00
(IPC 1-7):
CPC: B63H9/00 B63H9/0685
European class: B63H9/00 B63H9/06E

[Classification Explorer](#)

Abstract:

The ship has a 100 percent hybrid design comprising two or more floating structures which are joined together by a strong superstructure and optionally a strong substructure too. Water is made to flow between these structures and this flow of water is harnesses to generate energy. The 100 percent hybrid design means it is powered entirely by tidal, wave, wind and **solar** energy.



16) Family number: 28022342 (DE10136079A1)

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Title: SHIP WITH ELECTRIC MOTOR DRIVE HAS WIND POWER SYSTEM DRIVING CHARGING STATION GENERATOR WITH AIR TURBINE(S) IMMEDIATELY ABOVE DECK FITTINGS WITH TURBINE WHEEL IN FORM OF RADIAL FAN WHEEL SCHIFF MIT EINEM ELEKTROMOTORISCHEN ANTRIEB

Priority: DE20011036079 20010726

Family:	Publication number	Publication date	Application number	Application date
	DE10136079 A1	20030220	DE20011036079	20010726

Probable Assignee: HORN ERICH

Assignee(s):(std): HORN ERICH

Inventor(s):(std): HORN ERICH

International class B63H1/36 F03D9/00 (Advanced/Invention);
 B63H1/00 F03D9/00 (Core/Invention)

International class B63H19/02 B63H21/17 B63H7/02 F03D1/00 H01L31/04
(IPC 1-7):

CPC: B63H1/37 F05B2210/18 F05B2240/931 F03D9/007 F03D9/11 F03D9/25 H02S10/12 Y02E10/725

European class: B63H1/36 F03D9/00 R05B210/18 R05B240/931 Y02E10/72

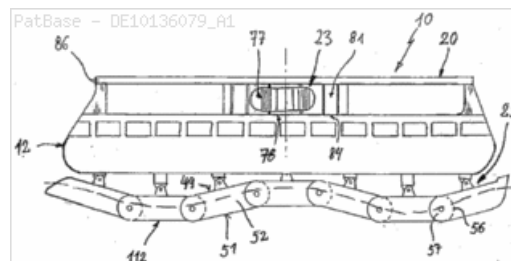
[Classification Explorer](#)

Cited documents: US6261138 BA, US6000353 A, GB277007 A, FR2484356 A1, DE699357 A, DE4434223 A1, DE4136379 A1, DE4017860 A1, DE4000328 A1, DE3501682 A1, DE153906 A,

Forward Citations: WO07039791, RU2471671, FR2960513, DE102009047230, DE102007053037,

Abstract:

The ship has an electric motor drive whose electrical supply is implemented as an on-board accumulator station charged by a photovoltaic electrical generation system and a wind power system (23) driving at least one generator of a charging station. The wind power system has at least one air **turbine** arranged immediately above deck fittings with a **turbine** wheel (77) in the form of a fan wheel of a radial fan.



17) Family number: 34675345 (ES1058096Y)

© PatBase

Title: EMBARCACION PROPULSADA POR ROTOR TIPO MAGNUS.

Priority: ES20040001593U 20040629

Family:

Publication number	Publication date	Application number	Application date
ES1058096 UA	20041101	ES20040001593U	20040629
ES1058096 Y1	20050216	ES20040001593U	20040629

Probable Assignee: MAQUINARIA NAVAL MAPSA S L

Assignee(s):(std): MAQUINARIA NAVAL MAPSA S L ; MAQUINARIA NAVAL MAPSA SL

Inventor(s):(std): FERNANDEZ TERUEL JOSE

International class (IPC 8-9): B63H9/02 (Advanced/Invention);
B63H9/00 (Core/Invention)

International class (IPC 1-7): B63H9/02

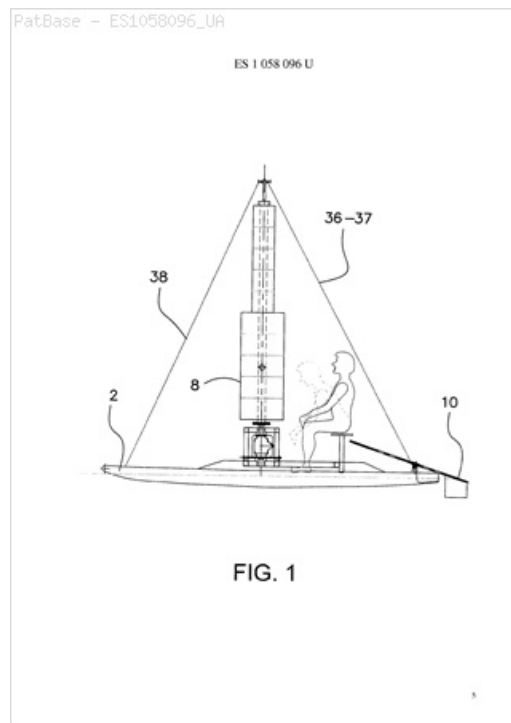
CPC: Y02T70/58

European class: Y02T70/58

[Classification Explorer](#)

Abstract:

Source: ES1058096U [ES] 1. Embarcacion propulsada por rotor tipo magnus, del tipo que comprende un elemento de impulsión montado en la parte central de la embarcacion, equilibrando estatica y dinamicamente la masa global de la misma, caracterizada porque el elemento de impulsión consiste en un grupo constituido por un rotor vertical (8) accionado en rotación por un motor primario lateral (7) y un inversor (11 a 25) del sentido de giro del rotor (26). **Machine translation:** 1. Boat propelled by magnus rotor type, of the type comprising a driving element mounted in the central part of the boat, balancing statically and dynamically the overall mass of the same, characterized in that the drive element consists of a group consisting of a vertical rotor (8) driven in rotation by a motor primary side (7) and an inverter (11 to 25) of the direction of rotation of the rotor (26).



18) Family number: 60600386 (US2015298806A)

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Title: AIRBORNE RIGID KITE WITH ON-BOARD POWER PLANT FOR SHIP PROPULSION

Priority: US20140981050P 20140417 US20140485412 20140912 US20150620201 20150212
WO2015US25553 20150413 US20160167415 20160527

Family:

Publication number	Publication date	Application number	Application date
AU2015247940 AA	20151022	AU20150247940	20150413

CA2945751 AA	20161013	CA20152945751	20150413
EP3131811 A1	20170222	EP20150779413	20150413
EP3131811 A4	20171101	EP20150779413	20150413
KR20160145724 A	20161220	KR20167031942	20150413
US2015298806 AA	20151022	US20140485412	20140912
US2016273519 AA	20160922	US20160167415	20160527
US9248910 BA	20160202	US20150620201	20150212
US9353033 BB	20160531	US20140485412	20140912
US9784243 BB	20171010	US20160167415	20160527
WO15160697 A1	20151022	WO2015US25553	20150413

Probable Assignee: X DEVELOPMENT LLC

Assignee(s):(std): GOOGLE INC ; X DEV LLC

Assignee(s): DEVAUL RICHARD WAYNE ; GOOGLE LLC ; VAN ALSENOY THOMAS ; X DEVELOPMENT LLC ; VANDER LIND DAMON

Inventor(s):(std): DEVAUL RICHARD WAYNE ; VAN ALSENOY THOMAS ; VANDER LIND DAMON

Agent(s): SPRUSON AND FERGUSON; SMART AND BIGGAR; CHETTLE JOHN EDWARD; MCDONNELL BOEHNNEN HULBERT AND BERGHOFF LLP; CAVAN CHRISTOPHER M

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): B63B35/44 B63H21/20 B63H9/00 B63H9/06 B63J3/00 B64C27/00 B64C31/06 B64C39/02 B64D3/00 B64D47/00 B64F1/36 B64F3/00 B64F3/02 C02F1/20 C02F1/469 C07C29/141 C25B1/04 C25B9/00 F02B63/04 F03D1/00 F03D11/04 F03D5/00 F03D9/00 F03G7/08 H02K7/18 H02P9/04 (Advanced/Invention); C02F101/10 (Advanced/Non-invention)

CPC: B64F3/00 B64C2201/205 C02F1/20 C02F1/4693 C25B1/04 C25B9/00 C02F2101/10 F05B2240/923 F05B2240/917 F05B2240/921 Y02E10/70 Y02E10/725 Y02E10/728 B63J2003/046 Y02E60/366 Y02P20/133 Y02T70/5209 Y02T70/5218 Y02T70/70 Y02T90/46 B64C27/00 B64D47/00 H02K7/1838 B64C2201/206 B64C2201/208 B64C2201/024 B64C2201/021 B64C2201/028 B64C2201/145 B64C39/022 B63H9/0685 B63H21/20 B63J2003/002 B64C31/06 B64D3/00 B64F1/36 B64F3/02 F03D5/00 B63H2009/0692 F03D9/008 F03D9/25 F03D9/32 F03D9/11 F03D80/80 B63H9/08 C07C29/151 B63H9/00

US class: 1/1 242/370 244/2 290/55 422/187 518/704

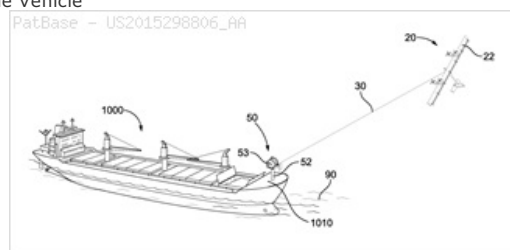
[Classification Explorer](#)

Cited documents: WO13096345 A1, WO11119876 A1, WO10148373 A1, US9227168 BA, US8575770 BB, US8350403 BB, US8277632 BB, US8080889 BB, US7129596 BB, US6113773 A, US5435259 A, US4568522 A, US4282187 A, US2013307274 AA, US2013221679 AA, US2013213289 AA, US2013193266 AA, US2013008792 AA, US2012104763 AA, US2011260462 AA, US2011101692 AA, US2010244450 AA, US2009221725 AA, US2007250226 AA, US2007176432 AA, US2005067300 AA, JP2013508218 T2, EP2698312 A1, CA2763225 AA,

Forward Citations: WO18075632, WO17218121, WO17218120, WO17218119, WO17218118, WO17218117, US9915136, US9914683, US9914644, US9879655, US9873650, US9862643, US9767700, US9732731, US9698642, US9657399, US2017363069, US2017363068, US2017363067, US2017113561, US2017016125, US2016264260, US2016207626, US2015330368, DE102016006746, CN106697243,

Abstract:

A vehicle-based airborne wind **turbine** system having an aerial wing, a plurality of rotors each having a plurality of rotatable blades positioned on the aerial wing, an electrically conductive tether secured to the aerial wing and secured to a ground station positioned on a vehicle, wherein the aerial wing is adapted to receive electrical power from the vehicle that is delivered to the aerial wing through the electrically conductive tether; wherein the aerial wing is adapted to operate in a flying mode to harness wind energy to provide a first pulling force through the tether to pull the vehicle; and wherein the aerial wing is also adapted to operate in a powered flying mode wherein the rotors may be powered so that the **turbine** blades serve as thrust-generating **propellers** to provide a second pulling force through the tether to pull the vehicle



19) Family number: 42094400 (US2008190341A)

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Title: SYSTEM AND METHOD OF ADJUSTING THE LOCATION AND POSITION OF THE FORESAIL ON A SAILBOAT

Priority: US20070900549P 20070208 US20070920957P 20070330 US20070788785 20070419
US20070821315 20070622 US20070848986 20070831 WO2008US53185 20080206
US20090534890 20090804 US20110030386 20110218 US20110106427 20110512
US20110212702 20110818 WO2012US25897 20120221 US20120000046 20120221
US20130000046 20131025 US20170440700 20170223

Family:	Publication number	Publication date	Application number	Application date
	CN101688692 A	20100331	CN200880011219	20080206
	CN101688692 B	20120704	CN200880011219	20080206
	CN102745322 A	20121024	CN201210156084	20080206
	US2008190341 AA	20080814	US20070788785	20070419
	US2008190476 AA	20080814	US20070821315	20070622
	US2009288586 AA	20091126	US20090534890	20090804
	US2010065104 AA	20100318	US20070848986	20070831

US2011168071 AA	20110714	US20110030386	20110218
US2011214667 AA	20110908	US20110106427	20110512
US2011297064 AA	20111208	US20110212702	20110818
US2014035509 AA	20140206	US20120000046	20120221
US2017264100 AA	20170914	US20170440700	20170223
US8258394 BB	20120904	US20070821315	20070622
WO08098051 A2	20080814	WO2008US53180	20080206
WO08098051 A3	20081218	WO2008US53180	20080206
WO08098055 A2	20080814	WO2008US53185	20080206
WO08098055 A3	20081218	WO2008US53185	20080206
WO12112990 A2	20120823	WO2012US25897	20120221
WO12112990 A3	20121227	WO2012US25897	20120221

Probable Assignee: BARUH BRADFORD G
Assignee(s):(std): BARUH BRADFORD G
Inventor(s):(std): BARUH BRADFORD G
Agent(s): BUCHANAN INGERSOLL AND ROONEY PC; NUZUM KIRK M
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): B63B1/10 B63B15/00 B63B27/08 B63B41/00 B63B43/04 B63B43/06 B63B43/08 B63H9/06 B65G67/02 B66D1/40 E04D13/18 E04G25/00 F03D9/00 F03D9/02 F03D9/25 F16H1/06 F24J2/00 F24J2/04 F24J2/36 H01L31/042 H01L31/045 H01L31/048 H02J3/38 H02J7/00 H02J7/35 H02K7/18 H02S10/12 H02S10/20 H02S20/30 (Advanced/Invention); B63B15/00 B63B41/00 B63B43/00 E04D13/18 E04G25/00 F16H1/04 F24J2/00 F24J2/04 F24J2/36 H01L31/045 H01L31/048 (Core/Invention)

CPC: B63B2209/18 B65G67/02 B63H9/04 B63J2003/003 H02S30/20 Y02T70/70 B63B15/0083 B63B41/00 B63B2015/0075 B63H9/06 H02S20/00 Y02B10/20 Y02E10/44 Y02E10/47 Y02E10/40 B63B15/00 Y10T74/19651 Y10T137/85978 Y10T137/85986 Y02B10/12 Y02E10/50 B63B15/02 B63H9/10 H02J3/383 H02J7/35 H02K7/1838 F03D9/257 F03D9/007 H02S10/12 H02S10/20 H02S20/30 H02S20/23 F24S20/50 F24S20/67 F24S20/70 F24S30/20 F24S30/452 H02J7/0055 F03D9/11 H02J3/386 Y02E10/725

European class: B63B15/00 B63B15/00M B63B15/02 B63B41/00 B63H9/04 B63H9/06 B63H9/10 F24J2/04B12 F24J2/36 F24J2/52B F24J2/52C F24J2/54C2 H01L31/042B H01L31/045 H01L31/048B L63B15/00C8M L63B209/18 L63J3/00B2P Y02B10/12 Y02B10/20 Y02E10/40 Y02E10/44 Y02E10/47 Y02E10/50 Y02T70/70

US class: 114/121 114/121S 114/124 114/141 114/141S 114/39.26 114/39.26P 114/39.29 114/39.290S 114/39.32 114/39.320P 114/90 114/90S 126/621 126/621S 126/625 126/625S 126/626 126/626S 126/634 126/634S 136/245 136/251 137/565.01 137/565.010S 137/565.11 137/565.110S 248/351 248/351S 290/55 320/101 414/373 74/414 74/414S

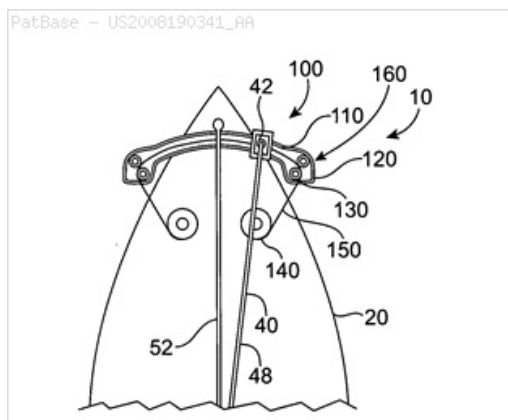
[Classification Explorer](#)

Cited documents: WO8103311 A1, US7252086 BB, US7252083 BB, US7201431 BA, US7192974 BB, US7150153 BB, US7102074 BB, US7101431 BB, US6953000 BB, US6886481 BA, US6526901 BB, US6472593 BA, US6189947 BA, US6189471 BA, US5149407 A, US4856803 A, US4856445 A, US4658599 A, US4626852 A, US4355630 A, US4323052 A, US4263861 A, US4253861 A, US4013031 A, US3868945 A, US3867894 A, US3623445 A, US3408973 A, US3397117 A, US3173395 A, US3141435 A, US3110281 A, US28979 A, US2012223580 AA, US2012112546 AA, US2012053837 AA, US2011228520 AA, US2011176256 AA, US2011040418 AA, US2011037264 AA, US2010225266 AA, US2010090605 AA, US2009128085 AA, US2008314434 AA, US2007084768 AA, US2007000422 AA, US2005252432 AA, US2004194683 AA, US2004173255 AA, US1856803 A, US1855803 A, US148726 A, KR20100065542 A, JP9510415 T2, JP6171577 A2, JP6024383 A2, JP403145168, JP3145168 A2, JP2007514887 T2, JP2007118925 A2, JP2002127989 A2, GB819916 A, EP0941919 A1, EP0816219 A2, DE2109511 A1, DE19614152 A1,

Forward Citations: WO16038264, WO15158033, WO14179893, WO13089909, WO13002928, WO13002928, WO12114057, WO11153301, WO11153301, WO11142844, WO11008891, WO10099596, US9990813, US9790065, US9711672, US9494343, US9300169, US9212830, US9139256, US9006940, US8752880, US8748729, US8736223, US8561315, US8541680, US8479459, US8469313, US8366172, US8365479, US8330040, US8188414, US7963074, US2017210236, US2017058859, US2016173025, US2015194558, US2015061568, US2014319439, US2014077750, US2013153006, US2012242275, US2012235477, US2012024346, US2012023941, US2012005818, US2011309788, US2011308575, US2011129329, US2011023957, US2011005583, US2010212659, US2010193020, US2010154780, US2010051084, US2009288891, US2009184223, JP2016522665, JP2013519591, ITMO20120258, GB2502497, GB2502497, FR3025489, FR2958383, EP3145804, EP2791981, EP2669594, EP2472189, EP2472189, EP2372266, DE102016007399, DE102016007399, CN106160633, CN106160633, CN105452782, CH708034, CH706581,

Abstract:

A system for sailing windward, which includes a moveable track fixture, a fixed track configured to receive the track fixture, and a control system for securing the location of the track fixture within the fixed track relative to a bow of a sailboat. The system can also include a retractable **solar** panel system, which is attached to a nautical stay, wherein the stay is fixed at one end to a hull of the sailboat and at a second end to a mast of the sailboat. The **solar** panel system includes a plurality of **solar** panels, which are attached to a system for stacking the plurality of **solar** panels when not in use. In an alternative embodiment, the sailboat can include an extendable keel, which includes a moveable inner member positioned within the fixed keel and a control system for lowering or retracting the inner member.



Title: High speed electric watercraft

Priority: US19980076002P 19980226 US19990252038 19990218 CA20002298957 20000215
US20000561972 20000501 US20000254786P 20001213 US20010296754P 20010611
US20010877196 20010611 US20010302647P 20010705 US20010927640 20010813
US20010323723P 20010921 US20010349375P 20011222 US20020349375P 20020122
US20020164566 20020610 US20020164567 20020610 US20020187830 20020703
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US20030445249P 20030206 US20030474957P 20030603 US20030620618 20030717
US20030724240 20031201 US20040754608 20040112 US20050287381 20051128

Family:	Publication number	Publication date	Application number	Application date
	AU200017596 A1	20000824	AU20000017596	20000218
	AU200017596 A5	20000824	AU20000017596	20000218
	CA2298957 AA	20000818	CA20002298957	20000215
	DE10007497 A1	20001123	DE20001007497	20000218
	DE10132093 A1	20020620	DE20011032093	20010502
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	GB2346841 B2	20030326	GB20000003489	20000216
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	US2002185046 AA	20021212	US20020164567	20020610
	US2003060094 AA	20030327	US20020164566	20020610
	US2004090195 AA	20040513	US20030620618	20030717
	US6073569 A	20000613	US19990252038	19990218
	US6273015 BA	20010814	US20000561972	20000501
	US6532884 BB	20030318	US20010877196	20010611
	US6571722 BB	20030603	US20010927640	20010813
	US6659815 BB	20031209	US20020164566	20020610
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	US6969287 BA	20051129	US20040754608	20040112
	US7335071 BA	20080226	US20050287381	20051128

Probable Assignee: MARUTA ELECTRIC BOATWORKS LLC**Assignee(s):(std):** MARUTA ELECTRIC BOATWORKS ; MARUTA ELECTRIC BOATWORKS L L ; MARUTA ELECTRIC BOATWORKS LLC ; PEEK JOSEPH TIMOTHY ; MOTSENBOCKER KAYO ; MOTSENBOCKER MARVIN ANDREW ; HINKELMANN KLAUS ; MOTSENBOCKER MARVIN ; MARUYAMA KAYO ; MOTSENBOCKER MARVIN A ; PROFITT JAMES ARTHUR**Assignee(s):** MARVIN MOTSENBOCKER ; MOTSENBOCKER MARVIN MOTSENBOCKER KAYO ; KAYO MOTSENBOCKER ; MURATA ELECTRIC BOATWORKS LLC ; MARUTA ELECTRIC BOATWORKS L L C**Inventor(s):(std):** PROFITT JAMES ARTHUR ; PEEK JOSEPH TIMOTHY ; MOTSENBOCKER MARVIN ANDREW ; MOTSENBOCKER MARVIN A ; MOTSENBOCKER MARVIN ; MOTSENBOCKER KAYO**Inventor(s):** MARVIN MOTSENBOCKER ; MARVIN ANDREW MOTSENBOCKER ; KAYO MOTSENBOCKER**Agent(s):** PAT DONOGHUE

International class (IPC 8-9): B63B1/10 B63B1/12 B63B1/14 B63B43/04 B63B43/18 B63H1/18 B63H1/28 B63H20/36 B63H21/17 B63H21/22 B63H5/16 G01S15/04 G01S15/87 G01S15/88 G01S7/521 H03K17/945 (Advanced/Invention); B63B1/10 B63B39/00 B63H23/24 (Advanced/Non-invention); B63B43/00 B63H1/00 B63H20/00 B63H21/00 B63H5/00 G01S15/00 G01S7/521 H03K17/94 (Core/Invention); B63H23/00 (Core/Non-invention)

International class (IPC 1-7): B60L11/02 B63B1/00 B63B1/10 B63B1/12 B63B35/73 B63B43/04 B63H21/17 B63H21/22 G08B23/00 H02P5/46

CPC: B63B1/107 B63B1/12 B63B43/04 B63H21/17 Y02T70/5209 Y02T90/46 B63B1/125 B63B1/14 B63B39/005 B63H21/22 B63H23/30 H03K17/945 B63H23/32 B63B2209/18 B60L3/0061 B60L11/1803 B60L11/1851 B60L11/1872 B60L11/1874 B60L11/1881 B60L11/189 B60L11/1892 B60L15/20 B60L2200/32 B60L2240/12 B60L2240/421 B60L2240/423 B60L2240/545 B60L2240/547 B60L2240/549 B60L2260/167 B63H1/18 B63B43/18 B63H1/28 B63H5/165 B63H20/36 B63H23/24 G01S7/521 G01S15/04 G01S15/87 G01S15/88 Y02T10/645 Y02T10/705 Y02T10/72 Y02T10/7275 Y02T90/34 Y02T10/646

European class: B63B1/10C B63B1/12 B63B1/12M B63B1/14 B63B43/04 B63B43/18 B63H1/18 B63H1/28 B63H20/36 B63H21/17 B63H21/22 B63H23/30 B63H23/32 B63H5/16G G01S15/04 G01S15/87 G01S15/88 G01S7/521 H03K17/945 L63B1/10C L63B39/00V L63H23/24 Y02T70/52B Y02T90/46

US class: 114/121 114/283 114/61.1 114/61.100P 114/61.12 114/61.120P 114/61.13 114/61.14 318/109 318/109P 340/979 340/984 340/995.27 440/1 440/2 440/49 440/6 440/63 440/6P 440/6S 440/71 440/76

JP class F-Term: 3D116 3D117 3D118**JP class F-Index:** B63B1/12/A B63H21/17[Classification Explorer](#)

Cited documents: USRE36459 E, US6747457 BB, US6678589 BB, US6676460 BA, US6549830 BB, US6466024 BA, US6377515 BA, US6354892 BA, US6348751 BA, US6331762 BA, US6313608 BA, US6276974 BA, US6227918 BA, US6216501 BA, US6215261 BA, US6184656 BA, US6182598 BA, US6182596 BA, US6182590 BA, US6176190 BA, US6167829 BA, US6152062 A, US6137203 A, US6094023 A, US6084325 A, US6081098 A, US6078156 A, US6051952 A, US6037749 A, US6005317 A, US5961558 A, US5941189 A, US5941188 A, US5936321 A, US5931110 A, US5928040 A, US5915328 A, US5880548 A, US5863228 A, US5847533 A, US5839800 A, US5837948 A, US5834874 A, US5833501 A, US5832440 A, US5825099 A, US5814958 A, US5807151 A, US5800224 A, US5790355 A, US5759075 A, US5711742 A, US5703448 A, US5694878 A, US5694653 A, US5694553 A, US5691742 A, US5659231 A, US5656919 A, US5646467 A, US5637987 A, US5613887 A, US5598087 A, US5588886 A, US5575730 A, US5575703 A, US5544607 A, US5540169 A, US5522333 A, US5511504 A, US5467257 A, US5465679 A, US5456200 A,

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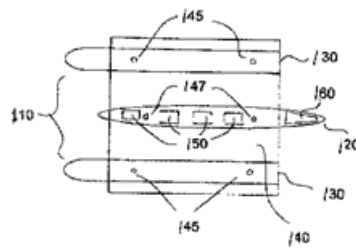
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WO18204048, WO18033656, WO17050708, WO15123530, WO13127928, WO13113681, WO11069623, WO11069623, WO11045487, WO11038869, WO11038869, WO09124841, WO09021522, WO08155448, WO07089850, WO07089693, WO06119057, WO02068896, WO02068896, USRE44161, USD594491, US9995820, US9966895, US9950788, US9944237, US9932093, US9932022, US9900668, US9893551, US9873487, US9831870, US9797319, US9776632, US9766064, US9760091, US9752798, US9724704, US9722282, US9669410, US9663211, US9660644, US9654103, US9638114, US9625530, US9605872, US9577567, US9568527, US9559688, US9558667, US9548733, US9545987, US9531379, US9531184, US9520875, US9475548, US9469066, US9450530, US9447613, US9426739, US9415836, US9376196, US9337832, US9311204, US9287864, US9269268, US9230442, US9219472, US9209724, US9197206, US9188691, US9184745, US9165469, US9143126, US9136840, US9115435, US9104650, US9044759, US9037299, US9018892, US9008874, US9000903, US8989939, US8983739, US8983283, US8976034, US8965640, US8963379, US8930050, US8928266, US8870106, US8858281, US8851946, US8845490, US8836257, US8803711, US8783592, US8758069, US8757526, US8739717, US8723468, US8708260, US8690621, US8678305, US8676482, US8672247, US8636552, US8550387, US8511593, US8500049, US8497770, US8480443, US8476853, US8464767, US8454402, US8442699, US8430347, US8425662, US8424787, US8406944, US8403124, US8387589, US8382019, US8356207, US8347859, US8337266, US8315750, US8265809, US8262424, US8205815, US8201766, US8201761, US8198853, US8190316, US8182396, US8162244, US8152577, US8149557, US8146845, US8113451, US8106529, US8091809, US8087599, US8074911, US8044933, US8028947, US8020796, US8018099, US8008812, US7974090, US7969705, US7963468, US7954737, US7946515, US7946514, US7887381, US7882394, US7865311, US7840318, US7812495, US7802741, US7789723, US7785162, US7753745, US7712689, US7661614, US7637723, US7635102, US7631824, US7631823, US7631822, US7624938, US7606011, US7559815, US7547199, US7511276, US7505836, US7483784, US7482767, US7481688, US7476862, US7445531, US7416458, US7353095, US7344096, US7311276, US7306496, US7267593, US7263945, US7247063, US7197390, US7165746, US7143363, US7121219, US7105800, US7078877, US7047902, US7040244, US7031807, US6986688, US6969287, US6912965, US6890224, US6888537, US6855020, US6854406, US6837758, US6709240, US6405653, US6141037, US2017117835, US2017113773, US2017022948, US2017015413, US2016305386, US2016264109, US2016133064, US2016123263, US2016096610, US2016039529, US2016016646, US2015369700, US2015346717, US2015276883, US2015100185, US2014263802, US2014176061, US2014032027, US2013328616, US2013218604, US2013199812, US2013197728, US2013193040, US2013180979, US2013127626, US2013010571, US2012238160, US2012164895, US2012089255, US2012025967, US2011294375, US2011246011, US2011208377, US20111203507, US2011196552, US2011195816, US2011186663, US2011173496, US2011143612, US2011143610, US2011143609, US2011111650, US2011104963, US2011064520, US2011056715, US2010320299, US2010320297, US2010288861, US2010282879, US2010280685, US2010280684, US2010275879, US2010270404, US2010252664, US2010243774, US2010235024, US2010185348, US2010170969, US2010125383, US2010102153, US2010092275, US2010090637, US2010084496, US2010076633, US2010014691, US2010008036, US2009284093, US2009276080, US2009127035, US2009090797, US2009042460, US2009032629, US2008299842, US2008290011, US2008281505, US2008254689, US2008236471, US2008174455, US2008173818, US2008142537, US2008105772, US2008053994, US2007249241, US2007246585, US2007246582, US2007246581, US2007205731, US2007175883, US2007152626, US2007150118, US2007067678, US2007051292, US2007049137, US2007049136, US2007046630, US2007028824, US2007023210, US2007017284, US2006254486, US2006232240, US2006225973, US2006219827, US2006197502, US2006191463, US2006175996, US2006057911, US2006054725, US2006054724, US2006052014, US2006009092, US2005267654, US2005263058, US2005231860, US2005139759, US2005115484, US2005040789, US2005037780, US2004242088, US2004238688, US2004192124, US2004181323, US2004100225, US2004063363, US2004015277, US2003151589, US2003137219, US2003060952, US2003053892, US2003003822, US10146357, US10124695, US10120374, US10112556, US10106237, US10099560, US10072597, US10038443, US10037701, US10018679, KR20140107664, KR101643833, KR101056999, JP5379747, JP2011246064, FR2904963, EP2634084, EP2601095, EP2601095, EP2548796, EP1806282, EP1806282, EP1806281, DE20212117, DE102016220441, DE102011086291, DE102010005050, CN107128455, CN105814733, CN105644755, CN104093628, CN103552650, CN103112570, CN102729745, CN102729745, CN102639396, AU2013214319,

Abstract:

High speed electric watercraft of various configurations are provided that utilize at least one submerged enclosed hull containing an electric motor and at least one other parallel float positioned higher than the enclosed hull to provide buoyancy for a platform that can carry one or more individuals above a water surface. The watercraft optionally include features of (1) a rounded front end on the platform, (2) a platform length that is shorter than the float for stability against tipping, (3) entryways that do not require stepping over a vessel hull, (4) dimensions fore and aft that minimize spray onto the rear of the platform, (5) shock absorbers to provide a smoother ride, and (6) adjustable struts that connect floats with the platform to allow control of the platform height above the water surface. These and other features are made possible by a fast electric design that avoids certain problems of vessel type watercraft.

Figure 1

**21) Family number: 43478448** (WO09080361A2)

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Title: A POWER GENERATION SYSTEM**Priority:** US20070016675P 20071226 EP20080394001 20080103

Family:	Publication number	Publication date	Application number	Application date
	EP2077392 A1	20090708	EP20080394001	20080103
	WO09080361 A2	20090702	WO2008EP11084	20081223
	WO09080361 A3	20090827	WO2008EP11084	20081223

Probable Assignee: MOLLOY PADRAIG**Assignee(s):(std):** MOLLOY PADRAIG**Inventor(s):(std):** MOLLOY PADRAIG**Agent(s):** LUCEY MICHAEL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class F03B13/10 F03B13/14 F03B13/16 F03B17/06 F03D1/00 F03D11/00 F03D11/04 F03D3/00
(IPC 8-9): F03D9/00 (Advanced/Invention);
 F03B13/00 F03B17/00 F03D1/00 F03D11/00 F03D3/00 F03D9/00 (Core/Invention)

CPC: F03D80/00 F03D1/00 F03B13/16 F03D3/00 F05B2240/93 Y02E10/28 Y02E10/38 Y02E10/74 Y02E10/727
 B63B21/50 F03D9/25 F03D13/25

European class: F03B13/16 F03D1/00 F03D11/00 F03D3/00 F03D9/00F R05B240/93 Y02E10/28 Y02E10/38 Y02E10/72
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[Classification Explorer](#)

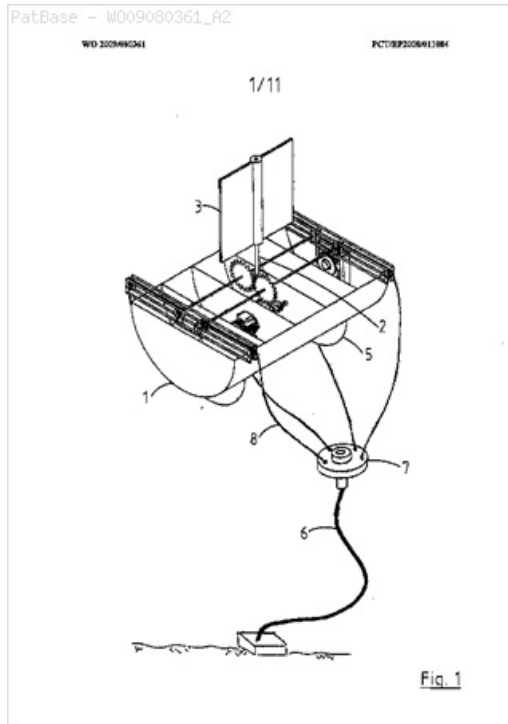
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DE102006061602 A1

Forward Citations: WO14105097, EP3214301, EP2711544, EP2711544, EP2504568, EP2504568,

Abstract:

A system of converting wind and wave energy into movement of a drive train comprising a vessel, having a substantially cylindrical shaped hull, or another shape designed to give the vessel optimal roll characteristics, adapted to roll freely on water in response to the wind and/or water wave energy; and a mooring system, suitable for connecting the vessel with an anchor, the mooring system adapted to capture the relative movement between the vessel and the anchor in response to the rolling, pitching and/or vertical motion of the vessel on water, and convert the relative movement into movement of a drive train to generate electricity. The wind capture system is adapted to amplify the hulls rolling motion by increasing the wind heeling load on the hull at a forward point of roll and decreasing the wind heeling load on the hull at an aft point of roll. The wind capture system comprises a system of shutters or vanes in which wind heeling load on the hull is varied by opening and closing the shutters or moving the vanes.



22) Family number: 52818455 (KR20130006931A)

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Title: SOLAR ENERGY AND WIND POWER SYSTEM SHIP AND THE MANUFACTURING METHOD

Priority: KR20110062429 20110627

Family:

Publication number	Publication date	Application number	Application date
KR101299281 B1	20130823	KR20110062429	20110627
KR20130006931 A	20130118	KR20110062429	20110627

Probable Assignee: OH MYEONG GONG

Assignee(s):(std): OH MYEONG GONG

Inventor(s):(std): OH MYEONG GONG

International class B63B5/24 B63H21/17 B63H9/06 H01L31/042 H02S10/12 (Advanced/Invention)
(IPC 8-9):

CPC: Y02E10/50 B63H21/17 B63B1/121 B63B2755/00 B63H9/06 B63H2021/171 F03D9/32 H02S10/40
Y02E10/52 Y02E10/70 Y02T70/5245 Y02T70/5254 Y02T70/583

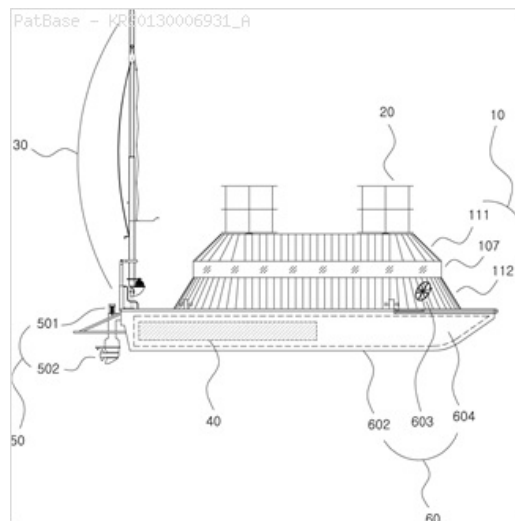
[Classification Explorer](#)

Cited documents: KR20100119701 A, KR20100090943 A, KR20060079940 A, JP2007500638 T2, JP2007500638,

Forward Citations: WO16093614, KR101398784, CN106781826, CN105836041, CN105811856, CN104369852,

Abstract:

PURPOSE: A ship with a fusion power system of sunlight generation and wind **turbine** generation and a manufacturing method thereof are provided to properly use even in reservoirs and environmental protection areas because carbon dioxide or other harmful materials are not discharged by using new renewable energy and wind. **CONSTITUTION:** A ship with a fusion power system of sunlight generation and wind **turbine** generation comprises a **catamaran** ship(60), a sunlight generation cabin(10), a wind **turbine** generator(20), a sail(30), multiple power devices(50), and a control part(40). A deck is formed at the bottom of a hull(602) and an empty space is formed inside the hull. Multiple **solar** cell modules are formed on the top of the sunlight generation cabin in multiple directions. The wind **turbine** generator is installed on the top of the sunlight generation cabin. The sail comprises upper and lower masts, a flexible **solar** cell module, a hinge, a bracket, a chain, an outer bearing, and a hydraulic cylinder. The power devices are arranged in the stern of the **catamaran** and a motor(501) and a **propeller**(502) are coupled to the power devices. The control part comprises a charge controller, a storage battery, a motor controller, a PCS, a power outlet for the land system interconnection and an emergency generator.



23) Family number: 52368457 (US2012290164A)

Title: MULTI-ROLE UNMANNED VEHICLE SYSTEM AND ASSOCIATED METHODS

Priority:	US20110485477P 20110512	US20120470866 20120514	US20150788231 20150630
	WO2016US40492 20160630	US20170609459 20170531	

Family:	Publication number	Publication date	Application number	Application date
	EP3317614 A1	20180509	EP20160818823	20160630
	US2012290164 AA	20121115	US20120470866	20120514
	US2015370252 AA	20151224	US20150788231	20150630
	US2017300054 AA	20171019	US20170609459	20170531
	US9096106 BB	20150804	US20120470866	20120514
	US9669904 BB	20170606	US20150788231	20150630
	WO17004419 A1	20170105	WO2016US40492	20160630

Probable Assignee: UNMANNED INNOVATIONS INC

Assignee(s):(std): EVERLY MARK ; HANSON BRUCE ; UNMANNED INNOVATIONS INC

Inventor(s):(std): HANSON BRUCE BECKER ; HANSON THOMAS ; HANSON THOMAS EDWARD ; HANSON BRUCE ; EVERLY MARK

Agent(s): FIORENTINO LUCA; MARK R; WILLIAM A; WIDERMANN MALEK PL; WILLIAM; MARK; MALEK MARK

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SZ TD TG TH TJ TM TN TR TT TZ UA UG UZ VC VN ZA ZW ZW

International class B60F5/00 B60F5/02 B63B1/04 B63B1/32 B63B35/00 B63G8/22 B64C3/38 B64C39/02 G01C22/00
(IPC 8-9): G01C23/00 G05D1/00 G05D1/04 (Advanced/Invention);
B63B1/20 B63B1/32 B63B35/00 B63G8/00 B63G8/22 B63G8/26 B64C35/00 B64C39/02 (Advanced/Non-
invention)

CPC: B63B2035/007 B64C39/024 G05D1/0088 B64C2201/02 B64C2201/126 B64C2201/141 B64C2201/146
B63B2035/008 B63B35/00 B60F5/00 B63B1/042 B63B1/32 B63B1/322 B63B2001/206 B63B2035/006
B63G8/26 B63G2008/004 B64C35/00 B64C2201/028 Y02T70/12 G01C21/20 G05D1/0027 B64C3/38
B60F5/02 B63G8/22 B63G2008/002

US class: 1/1 701/2 701/23

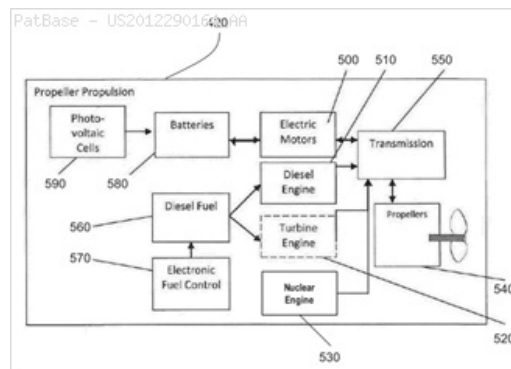
Classification Explorer

Cited documents: WO14144001 A2, US9096106 BB, US8973513 BB, US8888035 BB, US8677918 BB, US8500060 BB, US7979174 BB, US7938358 BB, US7789723 BB, US7328669 BB, US7296530 BA, US7290496 BB, US7264204 BA, US7047861 BB, US7028631 BB, US6807921 BB, US6772705 BB, US6742741 BA, US6672234 BB, US6640739 BB, US6341571 BA, US5415365 A, US2016147223 AA, US2015203183 AA, US2012318188 AA, US2012318184 AA, US2012290164 AA, US2012204780 AA, US2012130569 AA, US2011266086 AA, US2011226174 AA, US2011155840 AA, US2011029804 AA, US2010230532 AA, US2010200689 AA, US2009319112 AA, US2007051292 AA, US2005216182 AA, US2005183569 AA, US2005109259 AA.

Forward Citations: WO1/218768, WO17004419, WO16135527, WO15140612, WO14129907, US9969478, US9932100, US9927529, US9718523, US9669904, US9643700, US9616984, US9452814, US9443436, US2017045887, US2016378107, US2016236761, US2015251741, US2015025927, US10151848, US10114137, US10073465, US10048397, US10042068, US10025307, US10018742, RU2615808, FR3060113, ES2667124, ES2553471, EP3333540, DE102014111649, CN107640294, CN105644731, CN105549602, CN104806286, CN103472745.

Abstract:

An unmanned vehicle may include a vehicle body that comprises an enclosed hull. The unmanned vehicle may include a propulsion, a ballast control system, a center of gravity system, a pressurization system, a control surface system, a navigation control system, and an on board master control system. The on board master control system may execute local control over operation of the various systems of the unmanned vehicle. The unmanned vehicle may also include a power supply carried by a portion of the vehicle body to provide power to the various systems. The various systems of the unmanned vehicle may be independently operable to support selective operation of the unmanned vehicle in the air, on the surface of the water, and below the surface of the water.



24) Family number: 28220472 (US2002125736A)

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Title:	SEATING, HANDRAILS AND CANOPY FOR ROOFTOP DECK VEHICLES			
Priority:	US19970929691 19970915 US20010766996 20010123 US20030712227 20031114		US20000491764 20000127 US20020142403 20020510 US20050031263 20050106	
Family:	Publication number	Publication date	Application number	Application date
	US2002125736 AA	20020912	US20020142403	20020510
	US2002153745 AA	20021024	US20020177314	20020624
	US6237988 BA	20010529	US20000491764	20000127
	US6425625 BA	20020730	US20010766996	20010123
	US6679543 BB	20040120	US20020177314	20020624
	US6840825 BA	20050111	US20030712227	20031114
	US7338335 BA	20080304	US20050031263	20050106
Probable Assignee:	MESSANO FRANK			
Assignee(s):(std):	MESSANO FRANK			
Assignee(s):	WELLS FARGO BANK MINNESOTA NATIONAL ASSOCIATION AS ; JPMORGAN CHASE BANK ; JPMORGAN CHASE BANK AS COLLATERAL AGENT ; JPMORGAN CHASE BANK NA			
Inventor(s):(std):	MESSANO FRANK			
International class (IPC 8-9):	B60F3/00 B60K1/01 B60P3/34 (Advanced/Invention); B60F3/00 B60P3/32 (Core/Invention)			
International class (IPC 1-7):	B60F3/00 B60P3/32 B60P3/34			
CPC:	B60F3/0007 B60F3/0038 B60F3/0092 Y10S903/903 B60G13/14 B60G2300/60 B60G2500/30 B60G2800/914 B60K6/32 B60K6/46 B60L8/00 B60L8/003 B60L11/005 B60L11/123 B60L11/1877 B60L11/1881 B60L11/1887 B60L11/1894 B60L2200/18 B60L2200/28 B60L2200/36 B60L2220/20 B60L2220/44 B60L2260/28 B60W10/08 B60W2300/14 B60W2300/145 B60W2300/18 B60W2300/185 B62D59/04 Y02T10/6217 Y02T10/7005 Y02T10/7022 Y02T10/705 Y02T10/7077 Y02T10/7083 Y02T90/34 B60W20/15 B60K6/26 B60K6/28 B60W10/06 B62D35/001 Y02T10/90 B60H1/00428 B60W20/00 B60J7/165 B60P3/34 Y02T10/88			
European class:	B60F3/00B B60F3/00C2 B60F3/00D5 B60G13/14 B60K6/32 B60K6/46 B60L11/00B2 B60L11/12D B60L11/18M36 B60L11/18R B60L11/18R4 B60L11/18R8F B60L8/00 B60L8/00B B60P3/34 B60W10/08 B62D35/00B B62D59/04 H01L29/78B2B2 L60G300/60 L60G500/30 L60G800/914 L60L200/18 L60L200/28 L60L200/36 L60L220/20 L60L220/44 L60L260/28 L60W20/00 L60W300/14 L60W300/14A L60W300/18 L60W300/18A L60W300/19 T01L29/423D2B4B Y02T10/62F2 Y02T10/70B Y02T10/70D Y02T10/70H4 Y02T10/70J2 Y02T10/70J2B Y02T90/34			
US class:	114/290 114/61.15 114/61.16 180/65.22 180/65.4 180/65.5 180/65.8 257/E29.04 257/E29.128 257/E29.131 257/E29.133 257/E29.136 257/E29.26 296/156 296/156P 296/164 296/165 296/165P 296/175 296/210 296/26.06 296/26.09 296/26.14 440/12.5 440/12.52 52/79.5 903/903			

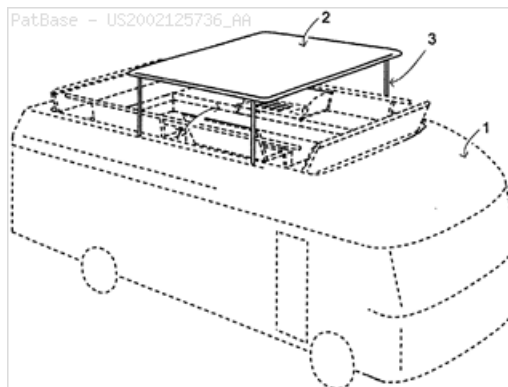
[Classification Explorer](#)

Cited documents:	USD362417 S1, USD149981 S1, US6722458 BB, US6679543 BB, US6527078 BA, US6425625 BA, US6394924 BA, US6394209 BA, US6378638 BA, US6376927 BA, US6364806 BA, US6325437 BB, US6293612 BA, US6237988 BA, US6237926 BA, US6220654 BA, US6209672 BA, US6173482 BA, US6159058 A, US6152475 A, US6102419 A, US6098346 A, US6059059 A, US5934728 A, US5908077 A, US5847520 A, US5833023 A, US5800002 A, US5690378 A, US5687669 A, US5655435 A, US5617805 A, US5586802 A, US5495912 A, US5492189 A, US5445236 A, US5433578 A, US5429405 A, US5398508 A, US5374094 A, US5314230 A, US5295430 A, US5243924 A, US5240278 A, US5218792 A, US5118131 A, US5078441 A, US4981319 A, US4881752 A, US4837914 A, US4716850 A, US4681083 A, US4666204 A, US4634142 A, US4598785 A, US4494937 A, US4465316 A, US4451058 A, US4392393 A, US4371056 A, US4358914 A, US4181188 A, US4103958 A, US4099589 A, US3981259 A, US3971455 A, US3960102 A, US3941074 A, US3877094 A, US3860982 A, US3841036 A, US3719383 A, US3608954 A, US3193851 A, US3161246 A, US3050330 A, US2581192 A, US2425948 A, US2235662 A, US2150615 A, US2132409 A, US2003104899 AA, US2003029651 AA, US2002175009 AA, US2002153745 AA, US1634932 A, US14657 A, US1034278 A, JP4103432 A2, JP404103432, GB2196583 A1, GB2168295 A1, GB2158295 A1, GB189614657 A, GB14657, FR962389 A, CA528037 A,
Forward Citations:	WO18142119, WO16116655, WO16023640, WO15007932, WO14046904, WO13172845, WO13076607, WO13036940, WO12167518, WO11125084, WO11056816, WO10085159, WO10070641, WO10012369, WO09149041, WO08086087, WO07059540, WO07059540, WO06132771, WO05115775, USD650722, US9937819, US9914494, US9845124, US9738210, US9669690, US9604564, US9604527, US9586458, US9579980, US9566854, US9561828, US9505317, US9481314, US9446703, US9440525, US9396462, US9381795, US9321352, US9193417, US9090253, US9079466, US9050923, US9030153, US8997901, US8986056, US8965613, US8959843, US8888652, US8852052, US8852051, US8845483, US8844212, US8834318, US8790215, US8781664, US8752499, US8706359, US8695739, US8691416, US8583551, US8555558, US8528680, US8454399, US8424287, US8418643, US8376070, US8347999, US8342279, US8337265, US8315930, US8221174, US8172265, US8141667, US8141666, US8120310, US7870830, US7849945, US7841644, US7814924, US7743859, US7674147, US7338335, US7234747, US7211983, US7150483, US7144058, US7052065, US7052064, US6981728, US6976721, US6857918, US6840825, US6729678, US6729677, US6425625, US2016318421, US2016090134, US2015375720, US2015246593,

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Abstract:

A vehicle rooftop deck system of affixed seating, handrails, and deck canopy-roof which raise for rooftop occupancy and lower for travel on recreational vehicles, amphibious vehicles, and watercraft.



25) Family number: 32176527 (ES2237313B)

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Title: MEJORAS INTRODUCIDAS EN LA PATENTE DE INVENCION P-200300987/6, POR: SISTEMA PARA OBTENER ENERGIA ELECTRICA.

Priority: ES20030000987 20030430

Family:	Publication number	Publication date	Application number	Application date
	ES2237283 AA	20050716	ES20030000987	20030430
	ES2237283 BA	20061016	ES20030000987	20030430
	ES2237313 AA	20050716	ES20030002539	20031030
	ES2237313 BA	20061016	ES20030002539	20031030

Probable Assignee: LANDA AXPE FCO JAVIER

Assignee(s):(std): LANDA AXPE FCO JAVIER ; LANDA AXPE FRANCISCO JAV

Inventor(s):(std): LANDA AXPE FCO JAVIER ; LANDA AXPE FRANCISCO JAV

International class (IPC 8-9): F03B13/10 F03B17/02 F03B7/00 F03B9/00 F25B27/00 (Advanced/Invention); F03B13/00 F03B17/00 F03B7/00 F03B9/00 F25B27/00 (Core/Invention)

International class (IPC 1-7): F03B13/10 F03B17/02 F03B7/00 F03B9/00 F25B27/00

CPC: F25B2309/061 Y02E10/20 Y02E10/22 Y02E10/223

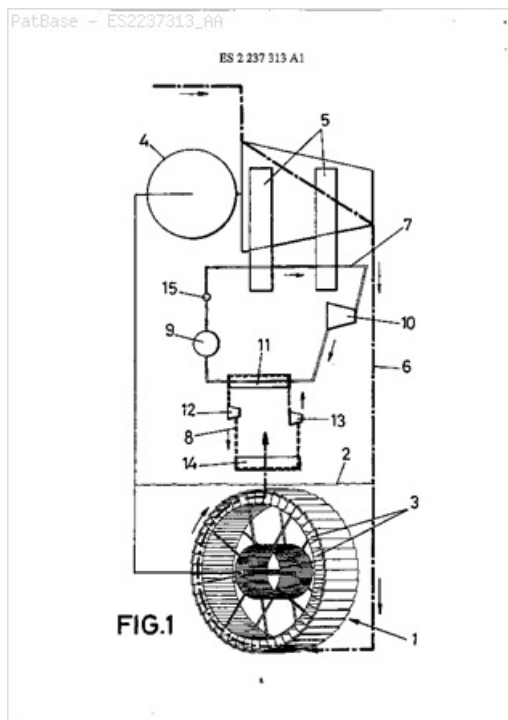
European class: R25B309/061 Y02E10/20 Y02E10/22 Y02E10/22B

[Classification Explorer](#)

Cited documents: US650063 A, US4363212 A, US4266402 A, JP59054777 A2, JP10054336 A2, GB2350159 A1, FR2420103 A1, EP0703420 A2, EP0676600 A2, DE2430866 A1,

Abstract:

Source: ES2237313B [ES] Mejoras introducidas en la patente de invencion P-200300987/6, por: sistema para obtener energia electrica. El sistema al que son aplicadas las mejoras incluye una turbina (1) con alveolos perifericos (3) abiertos hacia el exterior, en los que se aplica aire a traves de un circuito de aire comprimido (6), de manera que estando la turbina (1) sumergida en agua (2), puede girar por la fuerza del aire que se le aplica, pudiendo aprovechar la energia originada por el giro para su transformacion en energia electrica. Las mejoras consisten en incorporar un compresor (4) de dos intercoolers (5) de enfriamiento del aire a 0 degrees centigrade mediante un ciclo termodinamico del CO2, segun un circuito (7) con una turbina monoetapica (10), un tanque (9) de CO2, y un compresor (15), todo ello asociado a un circuito de refrigeracion (8) con un compresor (12) y una turbina (13), incluyendo un evaporador (11) y un condensador (14). El enfriamiento del aire en el compresor (4) en base al ciclo termodinamico del CO2, permite ampliar el flujo de entrada del aire en el compresor y aprovechar su calor como foco caliente para crear un foco frio artificial que permite completar el ciclo termodinamico del CO2 y accionar la turbina monoetapica (10).



26) Family number: 9681527 (EP0297200A1)

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Title: PROCESS AND APPARATUS FOR THE DIRECT RECOVERY OF WATER BY CONDENSATION OF ATMOSPHERIC WATER VAPOUR, USING WIND AND/OR SOLAR ENERGY. VERFAHREN UND GERAET ZUR DIREKTEN WASSERGEWINNUNG DURCH KONDENSATION VON ATMOSP

Priority: ES19860553734 19860404

Family:	Publication number	Publication date	Application number	Application date
	EP0297200 A1	19890104	EP19870870044	19870403

Probable Assignee: HERNANDEZ DE LOS ANGELES MANUE

Assignee(s):(std): HERNANDEZ DE LOS ANGELES MANUE

Assignee(s): HERNANDEZ DE LOS ANGELES MANUEL

Inventor(s):(std): HERNANDEZ DE LOS ANGELES MANUE

Inventor(s): HERNANDEZ DE LOS ANGELES MANUEL

Designated states: AT BE CH DE FR GB GR IT LI LU NL SE

International class (IPC 8-9): C02F1/04 E03B3/28 (Advanced/Invention); C02F1/04 E03B3/00 (Core/Invention)

International class (IPC 1-7): B01D53/26 C02F1/00

CPC: Y02A20/109 Y02A20/141 E03B3/28 C02F1/047

European class: C02F1/04P E03B3/28

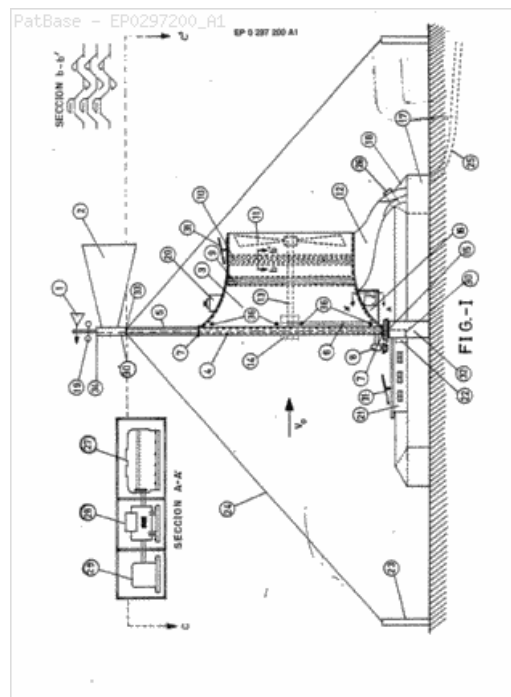
[Classification Explorer](#)

Cited documents: GB2151504 A1, GB2117656 A1, FR2541370 A3, FR2528321 A1, FR2321016 A1, FR2130620 A1, EP0227628 A1, DE3433119 A1,

Forward Citations: WO06045261, WO04067857, FR2954478, FR2833044, ES2163340, CN104563208, CN104481001, CN102134870,

Abstract:

A process and a **solar** wind machine are claimed for directly obtaining water by condensation of water in atmospheric air, for the continuous industrial prodn. of water. The air, moving in the direction of the wind and contg. the entire water of the hydrological cycle, penetrates through the front part of the machine which has previously oriented against the wind direction by known mechanisms, is subjected inside the machine to the following successive steps:-(a) a reduction in vol. and an increase of the water vapour, (b) a depression and an adiabatic expansion, followed by injection of "nucleating" factors - aerosols - which accelerate condensation and subsequent passage into an evaporator zone (of the refrigerating unit forming part of the machine), where the air reaches condensn. temp. and the major part of the water vapour condenses, the water formed falling onto the bottom of the machine. The air, which still contains residual water in suspension before leaving, passes through drops separators (10) located downstream of the evaporator zone and the water is recovered in the same collector as that of the evaporator zone.



27) Family number: 50527545 (US2012070122A)

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Title: HIGH STRENGTH WINDABLE ELECTROMECHANICAL TETHER WITH LOW FLUID DYNAMIC DRAG AND SYSTEM USING SAME

Priority: US2010036565P 20100719 US20100409894P 20101103 CN201180045064 20110719
US20110185507 20110719 WO2011US44539 20110719 US20110288527 20111103
WO2011US59146 20111103 US20140224021 20140324 US20140531449 20141103
US20140584536 20141229 US20150201536P 20150805 US20150928850 20151030

Family:	Publication number	Publication date	Application number	Application date
	CN103118941 A	20130522	CN201180045064	20110719
	CN103118941 B	20151014	CN201180045064	20110719
	CN103282276 A	20130904	CN201180064052	20111103
	CN103282276 B	20160120	CN201180064052	20111103
	CN105161190 A	20151216	CN201510600649	20110719
	CN105161190 B	20171003	CN201510600649	20110719
	EP2595883 A1	20130529	EP20110810283	20110719
	EP2595883 A4	20150930	EP20110810283	20110719
	EP2635491 A1	20130911	EP20110838810	20111103
	EP2635491 A4	20150916	EP20110838810	20111103
	US2012070122 AA	20120322	US20110185507	20110719
	US2012104763 AA	20120503	US20110288527	20111103
	US2015047875 AA	20150219	US20140531449	20141103
	US2015251754 AA	20150910	US20140584536	20141229
	US2016056621 AA	20160225	US20150928850	20151030
	US8921698 BB	20141230	US20110185507	20110719
	US8922046 BB	20141230	US20110288527	20111103
	US9227168 BA	20160105	US20140224021	20140324
	US9230714 BB	20160105	US20140531449	20141103
	US9896201 BB	20180220	US20140584536	20141229
	US9899127 BB	20180220	US20150928850	20151030
	WO12012429 A1	20120126	WO2011US44539	20110719
	WO12012429 A8	20130328	WO2011US44539	20110719
	WO12061598 A1	20120510	WO2011US59146	20111103

Probable Assignee: GOOGLE INC

Assignee(s):(std): FELSER JACOB ; GOOGLE INC ; LIND DAMON VANDER ; MAKANI POWER INC ; VANDER LIND DAMON ; X DEV LLC

Assignee(s): CLOCK LLC ; MAKANI POWER ; X DEVELOPMENT LLC ; GOOGLE LLC ; GOOGLE VENTURES 2012 LP

Inventor(s):(std): VANDER LIND DAMON ; FELSER JACOB ; LIND DAMON VANDER ; FELSER JACOB FELSER ; CASEY LEO ; PATTEN ELIAS WOLFGANG ; DEVAUL RICHARD WAYNE

Agent(s): HOFSTETTER SCHURACK AND PARTNER; SCHURACK EDUARD F; MCDONNELL BOEHNEN HULBERT AND BERGHOFF LLP; GUTH MICHAEL A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A63H27/00 B01J19/08 B63B35/44 B64C13/24 B64C31/06 B64C39/02 D07B1/14 D07B5/00 F03D1/02 F03D11/00 F03D11/04 F03D13/20 F03D5/00 F03D7/00 F03D9/00 F03D9/25 G02B6/44 G05D1/08 H01B7/00 H01B7/02 H01B7/04 H01B7/18 H01B9/00 H02G11/00 H02G7/00 H02P9/04 (Advanced/Invention);

F03D5/00 F03D80/00 (Advanced/Non-invention)

CPC:

F03D7/00 Y02E10/723 B01J19/08 B63B35/44 F05B2220/61 F05B2240/931 H01B7/025 F05B2240/922
H01B7/1815 B64C31/06 B64C13/24 Y02E70/10 Y02E10/728 D07B5/005 Y02E10/70 F03D13/25
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European class:

B64C31/06 F03D11/00 F03D5/00 F03D7/00 H01B7/04C H02G11/00 R05B240/917 R05B240/921
R05B240/922

US class:

1/1 174/102R 174/102SP 174/106R 174/108 174/113C 174/27 174/40R 244/154 244/154S
244/155.00AS 244/155A 290/55 290/55P 385/103 385/103P

[Classification Explorer](#)

Cited documents:

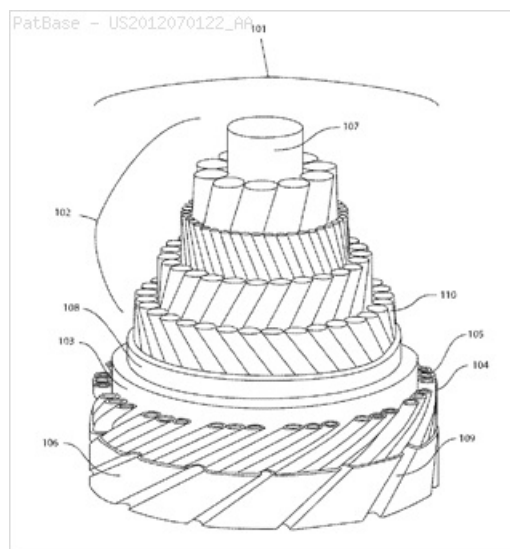
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US5435259 A, US5274725 A, US5202944 A, US4842221 A, US4696542 A, US4659940 A, US4646428 A,
US4568522 A, US4486669 A, US4450364 A, US4440974 A, US4365865 A, US4317000 A, US4282187 A,
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Forward Citations:

WO18072890, WO18067773, WO17218121, WO17218120, WO17218119, WO17218118, WO17218117,
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DE102015100817, CN105873824, CN105848998, CN105555659, CN105247206, CN104014133,
AU2017202978, AU2015284731, AU2014374087, AU2014366400,

Abstract:

A tether, and system using such a tether, adapted to provide mechanical and electrical coupling of an airborne flying platform to the ground. The tether may have a center structural core with electrical conductors on or near the outer diameter of the tether. The tether may utilize exterior configurations adapted to reduce drag.

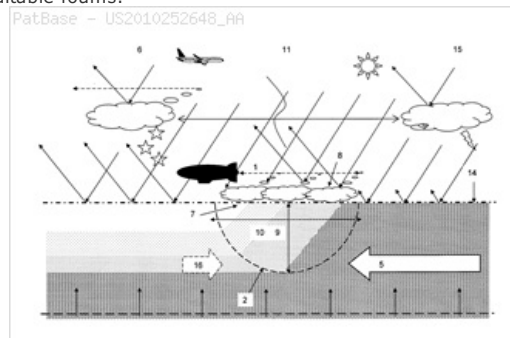


Priority: GB20070014751 20070726 GB20070016285 20070821 GB20070020463 20071017
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Family:	Publication number	Publication date	Application number	Application date
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	GB200716285 A0	20070926	GB20070016285	20070821
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	GB200807559 A0	20080604	GB20080007559	20080425
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	GB2467905 A1	20100825	GB20080013303	20080721
	US2010252648 AA	20101007	US20100698848	20100202

Probable Assignee: ROBINSON NICHOLAS P
Assignee(s):(std): ROBINSON NICHOLAS ; ROBINSON NICHOLAS P ; ROBINSON NICHOLAS PAUL ; TIMMONS ALBAN
Assignee(s): NICHOLAS PAUL ROBINSON
Inventor(s):(std): ROBINSON NICHOLAS PAUL
Inventor(s): NICHOLAS PAUL ROBINSON
Agent(s): NICHOLAS PAUL ROBINSON
International class (IPC 8-9): A01G15/00 B60V1/10 B64C29/00 (Advanced/Invention); A01G15/00 (Core/Invention)
CPC: A01G15/00 B64C39/064 B64C29/0025 B64C39/10 Y02T50/12 B60V1/10 B64C29/0016 B64C29/0058
European class: A01G15/00 B64C29/00B2B B64C39/06B1 B64C39/10 Y02T50/12
US class: 239/14.1
[Classification Explorer](#)
Cited documents: WO9201602 A1, US6561456 BA, US4470544 A, US3539273 A, US2008169375 AA, JP2002317747 A2, US9363954, US9309811, US7984566, US2016183480, US2015100219, US2012241554, US2012024971, US2011284690, US2010282860, RU2647258, FR3006147, EP2836065, CN102668846,
Forward Citations:

Abstract:
A climate processor having virtual estuaries which enable large strips of land to act like real water estuaries thereby providing a means of climate control overhead. Said estuaries are also used to prevent polar isotherm migration, melting ice shelves, vortical storm formation and migration from lateral coastal airflow. Said estuaries are formed between two parallel-laid thermal belts formed from artificial surface whitening and jet contrails. The surface whitening can be laid down as a foam or gel and deployed overhead as a high level aviation propellant. The belts may be applied daily and dissipate as the day progresses and subsequently warms. Commercial aircraft flights may be readjusted based on the placement of the artificial estuaries. Also claimed are an aerial deployment system for the foam, a high-level aviation propellant system, a carbon trading system for commercial airlines, a "Russian Doll" gas mixing device and a range of suitable foams.



29) Family number: 57225558 (WO14125503A3)

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Title: ROUNDED LIFE BOAT
Priority: IN2013MU00435 20130213
Family:

Publication number	Publication date	Application number	Application date
IN00435MU2013 A	20141121	IN2013MU00435	20130213
WO14125503 A2	20140821	WO2014IN00090	20140212
WO14125503 A3	20141204	WO2014IN00090	20140212

Probable Assignee: YOGENDRA SINH PATEL
Assignee(s):(std): GUPTA RAVI ; PATEL YOGENDRA SINGH
Assignee(s): YOGENDRA SINH PATEL
Inventor(s):(std): GUPTA RAVI ; PATEL YOGENDRA SINGH
Inventor(s): YOGENDRA SINH PATEL

Agent(s): CHUG NEHA

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): B63C9/00 B63C9/02 B63C9/03 B63C9/06 (Advanced/Invention)

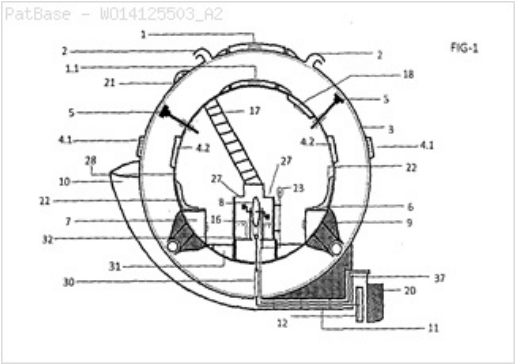
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[Classification Explorer](#)

Cited documents: US2012227659 AA, US1142224 A, US1133063 A, US1104745 A, EP0125799 A1, DE3204715 A1,

Forward Citations: CN107253514, CN107253514, CN105799887, CN105752293, CN105523154, CN105523154,

Abstract:
The invention provides a rounded life boat which can neither sink nor topple during any type of sea or river emergency. It contains oxygen cylinders, water and food for 'x' persons. It can be operated by paddle. It contains a propulsion system. The walls of the inner and outer ball structures are made of fiber glass or light metal materials. The outer ball structure of the invention protects the persons sitting inside the inner ball structure from any type of sea impacts. The inner and outer ball structures are independent from each other in order to prevent the inner ball structure from any type of sea impact. The inner and outer ball structures are separated from bearings made of steel. This invention is capable of carrying all essential material during the extreme sea emergency.



30) Family number: 44513563 (FR2935346A)

Title: SHIP I.E. TRIRAMA, HAS FRAME MASTS CONNECTED WITH EACH OTHER ON UPPER PART BY RAIL, SAILS FIRMLY FIXED TO SHELL AND ORIENTED TO PERMIT MEASUREMENT OF VARIATION OF WIND PRESSURE, AND PROPELLER ENGINES SITUATED AT REAR ENDS OF BALLAST LE TRIRAMA UN NAVIRE DE NOUVELLE CONCEPTION

Priority: FR20080004794 20080901

Family:

Publication number	Publication date	Application number	Application date
FR2935346 A1	20100305	FR20080004794	20080901

Probable Assignee: GEERINCKX LEON MARIE LOUIS JACQUES

Assignee(s):(std): GEERINCKX LEON MARIE LOUIS JACQUES

Assignee(s): LEON MARIE LOUIS JACQUES GEERINCKX

Inventor(s):(std): GEERINCKX LEON MARIE LOUIS JACQUES

Inventor(s): LEON MARIE LOUIS JACQUES GEERINCKX

Agent(s): LEON GEERINCKX

International class (IPC 8-9): B63H9/06 (Advanced/Invention); B63H9/00 (Core/Invention)

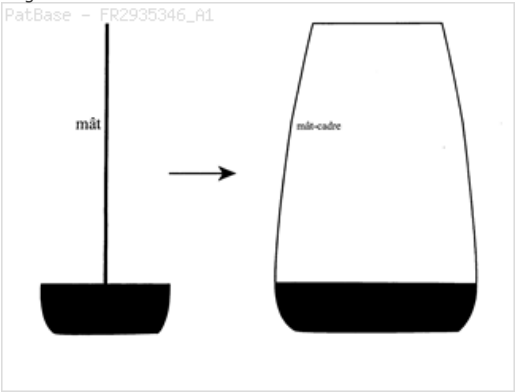
CPC: B63B15/0083 B63B2015/0025 B63H9/06

European class: B63B15/00M B63H9/06 L63B15/00C2

[Classification Explorer](#)

Forward Citations: FR3035066,

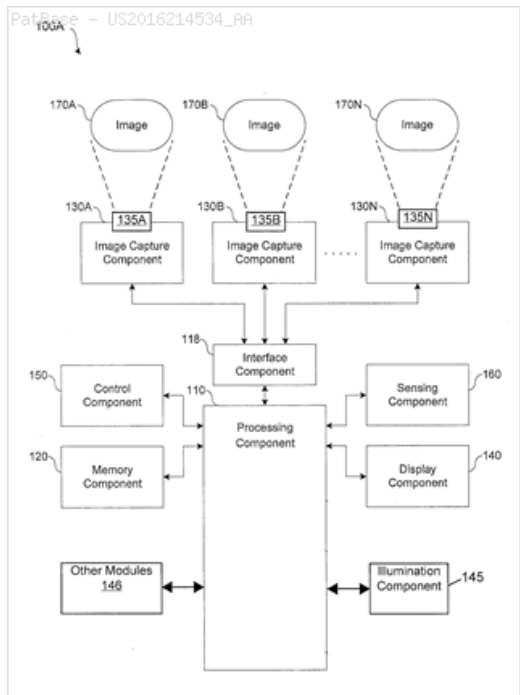
Abstract:
The ship has a shell, and frame masts connected with each other on an upper part by a rail. Sails are firmly fixed to the shell, and form a cage using an upper crosspiece, where the sails have a solid structure. A lower motor is fixed on an upper plate of a disk to rotate a lower plate to cause rotation of a tinglette boom for rotating the sails. The sails are oriented to permit measurement of variation of pressure of the wind on the sails. **Propeller** engines are situated at rear ends of ballast.



Title:	WATERCRAFT THERMAL MONITORING SYSTEMS AND METHODS																																													
Priority:	US20140943170P 20140221	US20140005838P 20140530	US20140044906P 20140902																																											
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Probable Assignee:	FLIR BELGIUM BVBA																																													
Assignee(s):(std):	FLIR BELGIUM BVBA ; FLIR SYSTEMS																																													
Assignee(s):	FLIR SYSTEMS INC																																													
Inventor(s):(std):	GATLAND CHRISTOPHER ; GATLAND CHRISTOPHER DANIEL ; JOHNSON MARK ; MURPHY ADAM ; POPE GORDON ; REID PETER A ; RICHARDS AUSTIN A ; RIVERS MARK ; ROBB MICHAEL ; ROBINSON JAY E ; STOKES PAUL ; TEICH ANDREW C																																													
Agent(s):	MICHELSON GREGORY J; WHITE KEVIN S																																													
Designated states:	AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW																																													
International class (IPC 8-9):	A01K79/00 A01K97/12 A01K99/00 B60R1/00 B63B69/00 G01S15/02 G01S15/50 G01S15/89 G01S15/96 G01S7/539 G01S7/62 G06F3/01 G06F3/0481 G06F3/0484 G06F3/0488 G06T15/08 G06T19/20 H04N13/02 H04N5/225 H04N5/33 (Advanced/Invention); G01S15/96 (Advanced/Non-invention)																																													
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Forward Citations:	WO18140645, WO18102772, US9976895, US9948914, US9896170, US9558643, US2016267766, US2016265966, JP6293960,																																													

Abstract:

A watercraft may include a safety system having an imaging component and a control component. The control component may modify the operation of the watercraft based on images from the imaging component. The imaging component may include a thermal imaging component and a non-thermal imaging component. The watercraft may include more than one imaging component disposed around the periphery of the watercraft to monitor a volume surrounding the watercraft for objects in the water such as debris, a person, and/or dock structures. Operating the watercraft based on the images may include operating propulsion and/or steering systems of the watercraft based on a detected object. The control component may operate the propulsion and/or steering systems to disable a **propeller** when a swimmer is detected, to avoid detected debris, and/or to perform or assist in performing docking maneuvers. The imaging components may include compact thermal imaging modules mounted on or within the hull of the watercraft.



32) Family number: 51938580 (US2012285160A)

© PatBase

Title:	WAVE-POWERED DEVICES CONFIGURED FOR NESTING					
Priority:	US20060436447	20060518	US20080082513	20080411	US20110453862P	20110317
	US20110453871P	20110317	US20110502279P	20110628	US20110535322P	20110915
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Family:	Publication number	Publication date	Application number	Application date
	AR085448 AA	20131002	AR2012P100904	20120319
	AR085449 AA	20131002	AR2012P100905	20120319
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	CN107082109 A	20170822	CN201610924505	20120628
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	DE602012027726 D1	20170302	DE201260027726T	20120628
	DE602012031627 D1	20170608	DE201260031627T	20120319
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	EP2686236 B1	20141217	EP20120731198	20120319
	EP2686543 A2	20140122	EP20120743552	20120319
	EP2686543 B1	20170426	EP20120743552	20120319
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	EP2739526 B1	20170111	EP20120740770	20120628

EP3208185 A1	20170823	EP20160199890	20120628
EP3267275 A1	20180110	EP20170167933	20120319
ES2635079 T3	20171002	ES20120743552T	20120319
HK1194040 A1	20150731	HK20140107451	20140722
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HK1194124 A1	20141010	HK20140107450	20140722
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MY164096 A	20171130	MY20130702368	20120628
MY166904 A	20180724	MY20130701665	20120319
SG10201602039U A1	20160428	SG20161002039	20120319
SG193480 A1	20131030	SG20130069521	20120319
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TW201309548 A	20130301	TW20120109396	20120319
TW201309549 A	20130301	TW20120109397	20120319
TWI522278 B	20160221	TW20120109395	20120319
TWI557024 B	20161111	TW20120109396	20120319
TWI600586 B	20171001	TW20120109397	20120319
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WO12126012 A3	20130228	WO2012US29703	20120319
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Probable Assignee: LIQUID ROBOTICS INC

Assignee(s):(std): HINE DEREK L ; HINE ROGER G ; LIQUID ROBOTICS INC

Assignee(s): LIQUID ROBOTICS INC SUNNYVALE

Inventor(s):(std): HINE DEREK L ; HINE ROGER G

Inventor(s): HINE ROGER G MENLO PARK

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD; SPRUSON AND FERGUSON; BORDEN LADNER GERVAIS LLP; SMART AND BIGGAR; LORD MICHAEL; GILL JENNINGS AND EVERY LLP; LLOYD ROBIN; HOWSON RICHARD GB; CARVAJAL Y ISABEL; CHINA PATENT AGENT HK LTD; SANYOU INTELLECTUAL PROPERTY LTD; ONE LEGAL LLC; KILPATRICK TOWNSEND AND STOCKTON LLP; GATES AND COOPER LLP; SLONE DAVID ET AL; SCHIFF MICHAEL ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A01B A01B79/00 A01C21/00 A01G1/00 A01K A01K61/00 A01K61/02 A01K61/80 A01K61/90 B63B B63B21/56 B63B21/66 B63B35/00 B63B35/44 B63B38/00 B63G8/08 B63H B63H1/30 B63H1/32 B63H1/36 B63H19/00 B63H19/02 B63H19/04 B63H21/17 B63H25/04 B63H25/08 B63J3/02 B63J99/00 F03B F03B13/00 F03B13/10 F03B13/16 F03B13/18 F03B13/20 G01N33/18 G01S G01S19/49 G05D G05D1/00 G05D1/02 G05D1/12 G05D3/12 G08G3/00 (Advanced/Invention); B63G8/00 B63G8/42 B63J3/00 (Advanced/Non-invention); A01K B63H F03B G01S (Subclass/Invention)

CPC: B63B2035/007 B63G2008/007 B63H21/17 B63J2003/002 G01N33/1886 B63B2209/18 B63G2008/425 B63H1/32 G01S19/49 B63H2021/171 B63H2025/045 G05D1/0206 Y02T70/5245 B63G8/42 B63G8/08 F03B13/1885 F05B2260/02 G08G3/00 G05D3/12 B63H19/04 F03B13/10 F03B13/1815 F03B13/20 F05B2240/931 Y02E10/38 F03B13/16 Y02P60/24 B63B2035/008 B63J99/00 B63J3/02 B63B2754/00 B63J2003/003 B63J2099/008 B63B35/00 A01K61/00 A01K61/80 A01K61/90 B63B21/66 B63B2211/02 B63H19/02 B63H25/04 Y02P60/64 Y02T70/59 Y02A40/81 Y02A40/845 F03B13/00 F05B2220/708

European class: B63B21/66 B63H1/32 B63H19/02 B63H25/04 F03B13/18B2B F03B13/20 G01S19/49 G05D1/02C L63B209/18 L63G8/42C L63H21/17P L63H25/04G R05B240/931 R05B260/02 Y02T70/52D2 Y02T70/59

US class: 1/1 114/242 114/256 114/267 114/336 114/337 119/230 290/53 414/800 440/10 440/6 440/9 47/1.4 60/327 60/497 60/499 701/2 701/21 701/23 701/24

Cited documents:

WO9846065 A1, WO9839205 A1, WO9639205 A1, WO9410029 A1, WO8704401 A1, WO1998046065, WO1998039205, WO1994010029, WO1987004401, WO19046065, WO19039205, WO19010029, WO19004401, WO13077931 A2, WO12126017 A2, WO12126012 A2, WO12126009 A2, WO08109022 A2, WO08109022 A1, WO08109002 A2, WO07087197 A2, WO0142992 A1, WO01042992, USD578463 S1, US986627 A, US9353725 BB, US9151267 BB, US9051037 BB, US8944866 BB, US8912677 BB, US8825241 BB, US8813669 BB, US8808041 BB, US8764498 BB, US8668534 BB, US8449341 BB, US8272987 BB, US8272831 BB, US8205570 BA, US8093736 BB, US8043133 BB, US7955148 BB, US7641524 BB, US7559288 BB, US7472866 BB, US7371136 BB, US7350475 BB, US7213532 BA, US6980228 BA, US6908229 BB, US6883736 BA, US6814633 BA, US6756695 BB, US6665189 BA, US6561856 BA, US6408792 BA, US6347912 BA, US6285807 BA, US6260501 BA, US6260501, US6194815 BA, US6099368 A, US6097424 A, US5902163 A, US5690014 A, US5678504 A, US5675116 A, US5577942 A, US5469801 A, US5273443 A, US5147148 A, US5084630 A, US5050519 A, US4981453 A, US4968273 A, US4896620 A, US4842560 A, US4763126 A, US4726314 A, US4684369 A, US4684359 A, US4684350 A, US4673363 A, US4638588 A, US4610212 A, US4598547 A, US4484838 A, US4462211 A, US4389843 A, US4383725 A, US4371347 A, US4365912 A, US4332571 A, US4225951 A, US4224951 A, US4224707 A, US4134023 A, US4081962 A, US3978813 A, US3962982 A, US3928967 A, US3889045 A, US3872819 A, US3860900 A, US3859949 A, US3845733 A, US3828380 A, US3760441 A, US3708991 A, US3613627 A, US3508516 A, US3453981 A, US3443020 A, US3352274 A, US3341871 A, US3312186 A, US3297814 A, US3132322 A, US3012757 A, US2868504 A, US2668512 A, US2520804 A, US2170914 A, US2014335747 AA, US2014290233 AA, US2014284998 AA, US2014283726 AA, US2014263851 AA, US2014116311 AA, US2014038477 AA, US2013102207 AA, US2013068153 AA, US2013059488 AA, US2013006445 AA, US2012295499 AA, US2012287751 AA, US2012285160 AA, US2012094556 AA, US2012069702 AA, US2012029718 AA, US2012029696 AA, US2012006277 AA, US201161453862 P, US2011278861 AA, US2011192338 AA, US2011174210 AA, US2011155039 AA, US2011067641 AA, US2011059638 AA, US2010268390 AA, US2009311925 AA, US2009308299 AA, US2009293788 AA, US2009218984 AA, US2009193715 AA, US2009107388 AA, US2008299843 AA, US2008294309 AA, US2008225643 AA, US2008188150 AA, US2007173141 AA, US2007051292 AA, US2006213167 AA, US2005268834 AA, US2004217597 AA, US2004190999 AA, US2004102107 AA, US2003220027 AA, US2003193197 AA, US2003174206 AA, US2003056419 AA, US2003009286 AA, US2002178990 AA, US2002176747 AA, US1315267 A, US1067113 A, TW547434 Y, TW547434 B, TW547434, TW256811 B, TW221588 B, TW221588, TW200734243 A, JP64050199 U1, JP64050199 U, JP64050199 A2, JP63149289 A2, JP63149289, JP6157488, JP61146498 U, JP61146498 A2, JP61057488 A2, JP55152698 A2, JP55151697, JP55051697 A2, JP55051697, JP45151697 B4, JP45151697 B1, GB2461792 A1, FR2669886 A1, FR1159028 A, EP1369013 A1, DE2848864 A1,

DE202008013757 U1

DE202008013757 U, DE202008013757, DE10300599 A1,

DE102007053037 A1

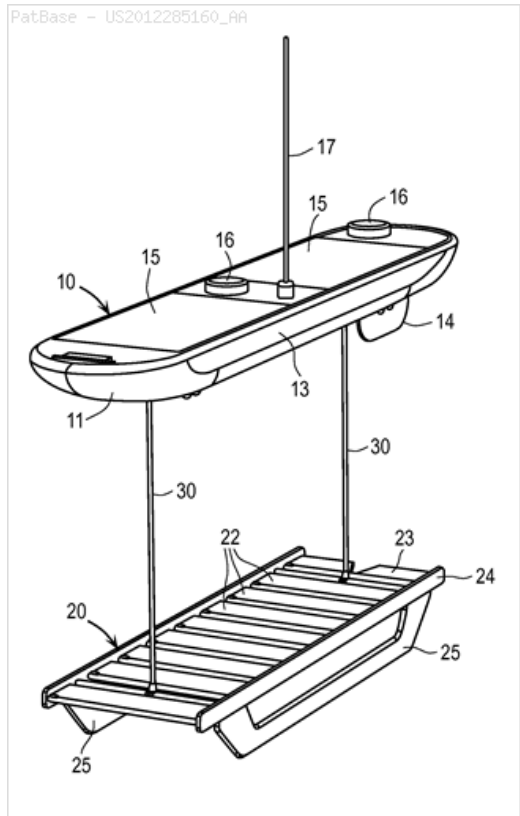
DE10141805 A1, CN2689229 Y, CN1829629 A, CN1715136 A, CN1396452, CN1280936 A, CN1132757 C, CN1132757 A, CN103635384 A, CN103635384, CN102292538 A, CN101622173 A, CN101405179 A, BE570555 Q, BE570555 A, BE570555 A,

Forward Citations:

WO18189724, WO18014499, WO17062764, WO16025576, WO16023071, US9936831, US9802681, US9791862, US9789944, US9778388, US9726142, US9709142, US9688373, US9656728, US9623945, US9541054, US9533740, US9524646, US9353725, US9347425, US9151267, US9051037, US8944866, US8939804, US8825241, US8808041, US8764498, US8668534, US7320632, US2018050764, US2017291671, US2017215614, US2016272294, US2016141911, US2016027308, US2016023721, US2015292472, US2015211477, US2014338321, US2014283726, US2014064026, US2012329345, US2010190394, US10150546, US10150545, US10099759, US10042066, US10041466, US10030747, US10005535, ES2528566, EP2978965, EP2978965, CN107187572, CN107082109, CN106628020, CN106114749, CN106005332, CN105775075, CN105444939, CN105015748, CN104875870, CN104872011, CN104229111, CN104149959, CN104149959, CN104100444, CN103984348, CN103984348, CN103950529,

Abstract:

A wave-powered water vehicle includes a) a first component which is a float that travels on or near the water surface; b) a second component which is wave actuated and travels below the first component; and c) a means whereby the first component engages the second component and/or the second component engages the first component; wherein the engagement means provides lateral support of one component for the other, and thereby minimizes lateral movement of one against the other when the components are fitted together.



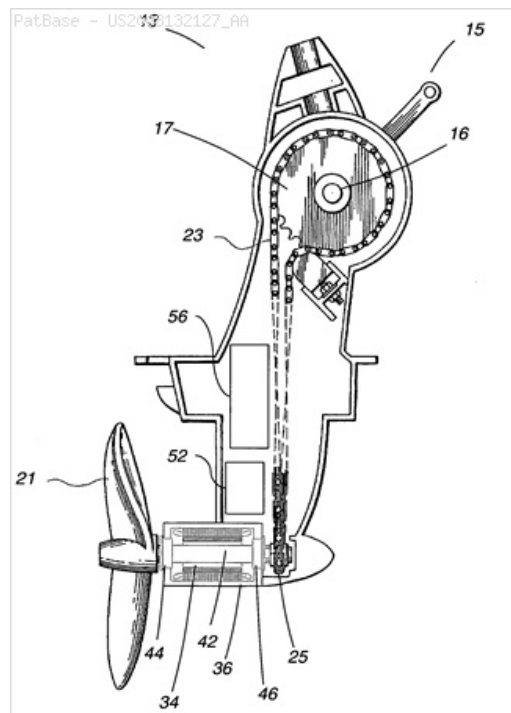
33) Family number: 41884596 (US2008132127A)

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Title:	ELECTRIC MOTOR ASSISTED PROPULSION SYSTEM FOR HUMAN-POWERED WATERCRAFT			
Priority:	US20060864005P 20061102		US20070933590 20071101	
Family:	Publication number	Publication date	Application number	Application date
	US2008132127 AA	20080605	US20070933590	20071101
	US7549902 BB	20090623	US20070933590	20071101
Probable Assignee:	JANSEN PATRICK LEE			
Assignee(s):(std):	JANSEN PATRICK LEE			
Inventor(s):(std):	JANSEN PATRICK LEE			
Agent(s):	PATRICK LEE JANSEN			
International class (IPC 8-9):	B63H16/18 B63H16/20 B63H21/17 B63H21/20 B63H21/22 B63H23/10 B63H23/12 H02J7/00 (Advanced/Invention); B63H21/00 H02J7/00 (Core/Invention)			
CPC:	B63B35/73 B63B35/7943 B63H16/14 B63H21/17 Y02T70/5209 Y02T70/5236 Y02T70/5245 Y02T90/38 Y02T90/46			
European class:	B63B35/73 B63B35/79M B63H16/14 B63H21/17 Y02T70/52B Y02T70/52D Y02T70/52D2 Y02T90/38 Y02T90/46			
US class:	320/101 320/101S 440/1 440/1P 440/27 440/3 440/30 440/6 440/6S			
Classification Explorer				
Cited documents:	US7021978 BB, US6986688 BA, US6855016 BA, US6712653 BB, US6217398 BA, US6065414 A, US5672080 A, US5362264 A, US5088944 A, JP9207886 A2, JP7304494 A2, DE10138662 A1,			
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Abstract:

A propulsion system for watercraft for personal enjoyment that incorporates human power with electric motor assistance, energy storage and optional **solar** power to achieve increased watercraft speeds and/or reduced pedaling effort. Control electronics enable operator-adjustable electric motor assistance to the propulsion, thereby providing flexible pedal cadences and efforts and enjoyment for a wide variety of operators. An optional photovoltaic **solar** panel augments the power generation to extend travel time with motor assistance, and recharges the energy storage system. This invention enables a pleasure watercraft that is simultaneously lightweight, low cost, low maintenance, environmentally friendly with zero pollution, ultra-low noise, and thrilling to operate, while simultaneously providing a means of enjoyable exercise for operators of nearly all abilities.



34) Family number: 31799603 (AU2002302091A)

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Title: Scavenger energy converter system its new applications and its control systems

Priority: AU20020302091 20021122

Family:	Publication number	Publication date	Application number	Application date
	AU2002302091 AA	20040610	AU20020302091	20021122

Probable Assignee: GAUDENCIO LABRADOR

Assignee(s):(std): GAUDENCIO LABRADOR

Assignee(s): LABRADOR GAUDENCIO A

Inventor(s):(std): LABRADOR GAUDENCIO A

Inventor(s): GAUDENCIO A LABRADOR

Agent(s): CHRYSILIOU IP

International class
(IPC 8-9): F03D9/00 F03G6/00 (Advanced/Invention);
F03D9/00 F03G6/00 (Core/Invention)

International class
(IPC 1-7): F03D9/00 F03G6/00

CPC: Y02B10/22 Y02B10/30 Y02B10/70 Y02E10/46 Y02E10/725

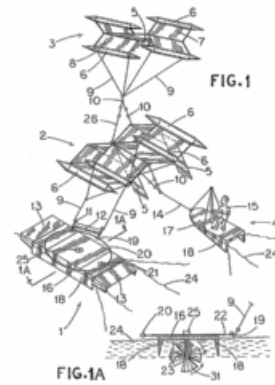
European class: Y02B10/22 Y02B10/30 Y02B10/70 Y02E10/46 Y02E10/72H

[Classification Explorer](#)

Forward Citations: WO14020367, US9287753, US8928160, US8164204, CN104813022,

Abstract:

What has been invented is a series of scientific applications of the wideface energy converter device, be it in the form of a wideface **solar** heat receiver or a wideface fluid impeder device. The wider is the **solar** heat receiver, the more **solar** power is available for conversion. The wider is the sail of the boat, the more wind is available to push the boat. Wherefore, the wideface **solar** trap made up of multi-layer transparent roofs covering a heat insulated box is used to heat up a radiator tubings that contain water. The multilayer transparent roof, having spaces in between sheets, prevents **solar** heat from backing out hence the trap becomes hotter and hotter because the inner sheet is not in contact with the cold wind. This **solar** trap is now used to heat up radiator pipes of compressed air coming from a gas **turbine** engine and then returned back to the exhaust **turbine** of same engine. Applying the principle of the wind sail, the **turbine** blades of the compressor and the **turbine** blades of the exhaust **turbine** are made wideface as much as possible to produce maximum impedance against the expanding exhaust hot air and to produce maximum push upon the fresh air being compressed. This wideface fluid impeder is now expanded into an underwater platform from One Acre or much more and attached to floating hotels, large/small boats, and floating sea walls, to prevent oscillation by the surfs. 36 9 Fig.1 104 Fig.I



-114-

35) Family number: 42573615 (US2010051450A)

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Title: ONSITE INTEGRATED PRODUCTION FACTORY

Priority: JP20070126324 20070511 JP20080082335 20080327 EP20080752392 20080507
 JP20090515140 20080507 WO2008JP58500 20080507 US20090615437 20091110
 US20120453496 20120423

Family:	Publication number	Publication date	Application number	Application date
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	JP2008142995 A1	20100805	JP20090515140T	20080507
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Probable Assignee: M HIKARI AND ENERGY LABORATORY CO LTD**Assignee(s):(std):** HIKARI AND ENERGY LAB CO LTD M ; MURAHARA MASAHIDE ; MURAHARA MASATAKA ; SEKI KAZUICHI**Assignee(s):** M HIKARI AND ENERGY LABORATORY CO ; M HIKARI AND ENERGY LABORATORY CO LTD**Inventor(s):(std):** MASATAKA MURAHARA ; MURAHARA MASATAKA**Agent(s):** GRAMM LINS AND PARTNER PATENT U RECHTSANWALTE PARTGMBB; LINS EDGAR; BACON AND THOMAS PLLC; SUZUYE TAKEHIKO ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A01G31/00 A01G7/02 A01G9/00 A01K61/00 A01K63/00 A01K63/04 B01D61/02 B01D61/48 B09B3/00 C01D1/04 C01D1/40 C02F1/46 C02F9/00 C12C5/00 C12F3/02 C12G3/02 C12M3/00 C25B1/00 C25B1/34 C25B15/00 C25C3/02 C25C3/04 C25C7/06 F03D1/02 F03D9/00 H01L35/30 (Advanced/Invention); A01G31/00 A01K61/00 A01K63/00 B01D61/02 B01D61/42 B09B3/00 C02F1/46 C25B1/00 C25B15/00 C25C3/00 (Core/Invention)

CPC: Y02W10/33 Y02W10/37 A01K63/042 B01D61/025 B01D61/48 C01D1/04 C01D1/40 C02F1/42 C02F1/441 C02F1/461 C02F1/66 C02F9/00 C02F2103/08 C12C5/002 C12F3/02 C12G3/02 C25B1/00 Y02E60/368 Y02P20/133 Y02P20/134 Y02P60/642 Y02E10/41 A01G31/00 Y02A20/131 Y02A20/134 Y02A20/141 Y02A20/142 Y02A20/144 F24S20/20

European class: A01G31/00 A01K63/04A B01D61/02D B01D61/48 C01D1/04 C01D1/40 C02F9/00 C12C5/00B C12F3/02 C12G3/02 C25B1/00 M02F1/42 M02F1/44B M02F1/461 M02F1/66 M02F103/08 Y02E60/36F2

US class: 119/215 119/215S 136/205 136/205S 204/240 204/242 204/242S 204/243.1 204/243.100S 205/516 435/289.1 435/289.100P 47/1.01R 47/1.01RS 47/1.1R 47/65 47/65S

JP class F-Term: 2B104 2B104/EB01 2B104/EC01 2B104/EC20 2B314 2B314/MA38 2B314/MA39 2B314/PD51 2B314/PD59 4D004 4D004/AA12 4D004/BA03 4D004/BA06 4D004/CA18 4D004/CA34 4D004/CC12 4D006 4D006/GA03 4D006/KA72 4D006/KB13 4D006/PA04 4D006/PB03 4D006/PB20 4D006/PB27 4D006/PC80 4K021 4K021/AA01 4K021/AA03 4K021/AA09 4K021/AB01 4K021/AB13 4K021/BA03 4K021/BC09 4K021/CA05 4K021/DC15 4K058 4K058/BA02 4K058/BA03 4K058/BA04 4K058/BA05 4K058/CB03 4K058/FA18

JP class F-Index: A01G31/00/612 A01K63/04/Z B01D61/02/500 B09B3/00/A B09B3/00/304/Z C25B1/00/Z C25C3/02/A C25C3/02/B C25C3/04

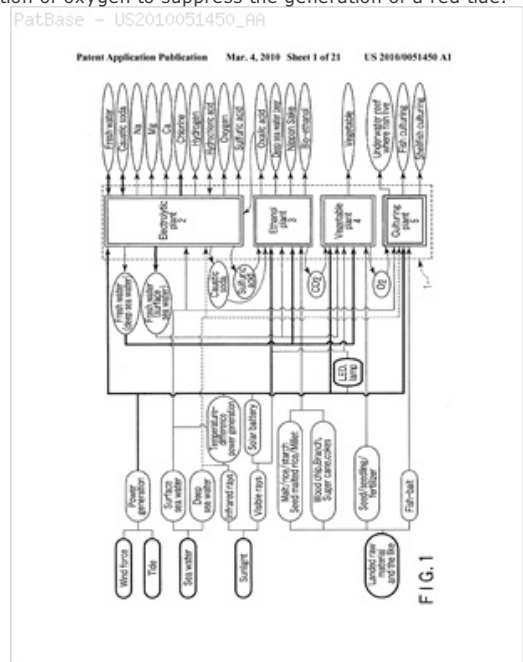
JP class Facet: ZAB

[Classification Explorer](#)

Cited documents: US5124012 A, KR100660761 B1, JPS6030622, JP7323279 A2, JP7323279, JP7063155 A2, JP6030622, JP60030622 A2, JP60030622, JP54118196 A2, JP53005647 A2, JP5135783 A2, JP5089710 A2, JP2007002721 A2, JP200675007, JP2006278352 A2, JP2006254900 A2, JP2006111895 A2, JP2006111895, JP2006075007 A2, JP2006075007, JP2005280581 A2, JP2005270859 A2, JP2005270859, JP2005145218 A2, JP2005126278 A2, JP2005069125 A2, JP2005052136 A2, JP2004537668 T2, JP2004344107 A2, JP2004296960 A2, JP2004290945 A2, JP2003333955 A2, JP2003206849 A2, JP2003206848 A2, JP2003169657 A2, JP2002303454 A2, JP2002255091 A2, JP2002059893 A2, JP2001213388 A2, JP2001057816 A2, JP2000202441 A2, JP11228101, JP11228101, JP11068176, JP11068176, GB2001374 A1, EP0209932 A1,

Forward Citations: WO17203053, WO16092580, WO13052248, WO11121852, WO10115983, US9784243, US9739504, US9382135, US9353033, US9248910, US9227168, US9057138, US2014245962, US2013171053, US2013087501, US2011171107, US2010236939, US2010089766, US10006132, TWI565216, NO333846, JP6058205, JP6052482, JP5970664, JP5856134, JP5733653, JP5681268, JP2016518519, JP2016518519, JP2015057937, JP2014059143, JP2014030433, JP2013158251, JP2013158250, JP2013087302, JP2012186870, JP2012023989, GC4087, ES2667593, EP3153244, EP3042717, CN106413924, CN104131310, CN103663827, CN102384517, CN102352514, CN101975141, CN101905913, BE1023849, AU2013200564, AU2010200189,

Abstract:
Using electric power obtained by marine wind force and a tide, sea water is electrolyzed to produce fresh water, sodium, magnesium, calcium, potassium, caustic soda, chlorine, hydrochloric acid, sulfuric acid, hydrogen, oxygen or the like, at the same time, unloaded malts, saw dust and the like are fermented to brew ethanol, carbon dioxide generated here is used for photosynthesis to culture vegetables and oxygen generated here is supplied to a fish preserve and an under reef where fish live to culture fishes and also returned to sea water dropped in the concentration of oxygen to suppress the generation of a red tide.



36) Family number: 8755622 (DE4105318A1)

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Title: Auxiliary propulsion drive for sailing yacht - uses electric motor coupled to battery recharged via IC engine, solar cells and wind or water powered turbine HILFSVORTRIEBSEINRICHTUNG FÜR EINE SEGELYACHT

Priority: DE19914105318 19910220

Family:	Publication number	Publication date	Application number	Application date
	DE4105318 A1	19920827	DE19914105318	19910220

Probable Assignee: FICHT GMBH

Assignee(s):(std): FICHT GMBH

Assignee(s): FICHT GMBH 8011 KIRCHSEEON DE

Inventor(s):(std): FICHT MARKUS

Inventor(s): FICHT MARKUS DIPL DESIGNER FH 8019 STEINHOERING ; FICHT MARKUS DIPL DESIGNER FH 8019 STEINHOERING DE

International class (IPC 8-9): B63H1/00 B63H19/00 B63H21/20 (Advanced/Invention)

International class (IPC 1-7): B63H21/17 B63J3/00

KR20120013393 A	20120214	KR20117027611	20100419
KR20120018332 A	20120302	KR20117027596	20100419
KR20120028884 A	20120323	KR20117027608	20100420
KR20120101664 A	20120914	KR20127014068	20101118
US2010264661 AA	20101021	US20090432837	20090430
US2010264662 AA	20101021	US20090481817	20090610
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US2010264667 AA	20101021	US20100815542	20100615
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US8258645 BB	20120904	US20090607440	20091028
US8373298 BB	20130212	US20100815542	20100615
US8466577 BB	20130618	US20100949318	20101118
US8487471 BB	20130716	US20120471762	20120515
WO10123799 A1	20101028	WO2010US31560	20100419
WO10123799 A8	20120223	WO2010US31560	20100419
WO10123812 A1	20101028	WO2010US31582	20100419
WO10123812 A4	20120202	WO2010US31582	20100419
WO10123847 A1	20101028	WO2010US31681	20100420
WO10123850 A1	20101028	WO2010US31685	20100420
WO10123881 A1	20101028	WO2010US31729	20100420
WO11066166 A1	20110603	WO2010US57186	20101118

Probable Assignee: BARBER GERALD L

Assignee(s):(std): BARBER GERALD L

Assignee(s): GERALD L BARBER

Inventor(s):(std): BARBER GERALD L

Inventor(s): BARBER GERALD ; GERALD L BARBER

Agent(s): REHBERG HUEPPE AND PARTNER; COPSEY TIMOTHY GRAHAM; THOMAS KAYDEN HORSTEMEYER AND RISLEY LLP; THOMAS HORSTEMEYER LLP; THOMAS GEORGE M

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): F01D5/24 F03B9/00 F03D1/02 F03D1/06 F03D11/00 F03D11/04 F03D7/00 F03D7/02 F03D9/00 H02K1/00 H02K1/18 H02K23/44 H02K41/03 H02K7/08 H02K7/09 H02K7/18 H02K9/00 H02K9/197 H02P9/04 (Advanced/Invention); B63H1/06 F03B13/00 F03B13/10 F03D7/02 H02K7/09 (Advanced/Non-invention)

CPC: F05B2240/34 F03D1/065 F05B2240/50 H02K1/182 H02K9/00 H02K41/03 F03D7/0204 F03D7/0224 F05B2240/2211 F05B2220/706 F05B2240/33 F05B2240/932 F05B2240/95 Y02E10/727 Y02B10/30 Y02B10/70 H02K2213/09 H02K7/1869 H02K2201/03 F03D1/0608 F05B2220/7066 H02K5/20 H02K5/26 H02K7/08 H02K9/19 F03D1/0666 F03D7/0236 F05B2240/202 F05B2240/311 F05B2260/79 F05B2280/6001 F05C2253/02 Y02E10/721 Y02E10/723 Y02E10/725 F03D1/0633 B63B21/48 Y02P80/158 F03D80/60 F03D80/70 F03D9/32 F03D13/10 F03D15/10 F03D13/20 F03D9/25 H02K9/197 F03D13/25

European class: F03D1/02 F03D1/06B F03D1/06C F03D1/06C4 F03D11/04 F03D7/02B F03D7/02D2 F03D7/02D6 F03D9/00 F03D9/00C H02K1/18A H02K5/20 H02K5/26 H02K7/08 H02K7/18A2 H02K7/18A2W H02K7/18B H02K9/00 H02K9/19 H02K9/197 R05B220/706 R05B220/7066 R05B240/202 R05B240/2211 R05B240/311 R05B240/33 R05B240/34 R05B240/40 R05B240/50 R05B240/932 R05B240/95 R05B260/79 R05B280/6001 R05C253/02 T02K201/03 T02K41/03 Y02B10/30 Y02B10/70 Y02E10/72 Y02E10/72B Y02E10/72F Y02E10/72H Y02E10/72L

US class: 290/43 290/44 290/52 290/52P 290/52S 290/54 290/55 290/55P 290/55S 310/90.5 310/90.500S 318/538 318/538P 415/121.3 415/121.300S 416/120 416/120S 416/132.00B 416/132B 416/147 416/147P 416/147S 416/155 416/205 416/224 416/41 416/85 416/85P 416/85S

[Classification Explorer](#)

Cited documents: WO9713979 A1, WO09048830 A1, WO08092136 A2, WO08014584 A1, WO03046376 A1, WO0173292 A1, WO0106623 A1, US8258645 BB, US8178993 BA, US8174142 BB, US8164212 BB, US8134251 BB, US8109727 BB, US8053919 BA, US7944069 BB, US7825532 BA, US7791214 BB, US7766601 BB, US7471009 BB, US7448337 BA, US7436086 BB, US7425772 BB, US7417334 BB, US7391128 BB, US7385306 BB, US7385305 BB, US7385303 BB, US7372172 BB, US7371135 BA, US7358624 BB, US7345377 BB, US7331762 BB, US7323792 BB, US7228812 BB, US7218011 BB, US7215038 BB, US717939 A, US7156037 BB, US7154193 BB, US7154192 BB, US7154191 BB, US7116006 BB, US7112010 BA, US7098552 BB, US7090550 BB, US7042109 BB, US6979171 BB, US6952058 BB, US6951443 BA, US6913044 BB, US6911741 BB, US6849965 BB, US6836028 BB, US677747 A, US6710489 BA, US6417578 BA, US6327994 BA, US6285090 BA, US6270308 BA, US6155785 A, US6091161 A, US6064123 A, US6015258 A, US5925952 A, US5876181 A, US5844341 A, US5600195 A, US5599172 A, US5599168 A, US5485666 A, US5469006 A, US5428290 A, US5336933 A, US5319278 A, US5315159 A, US5302874 A, US5299913 A, US5247219 A, US5226806 A, US5216308 A, US5142175 A, US5140209 A, US5139278 A, US4832571 A, US4764313 A, US4729716 A, US4720640 A, US4700094 A, US4652780 A, US4619585 A, US4582013 A, US4553037 A, US4548546 A, US4545729 A, US4494007 A, US4491739 A, US4483570 A, US4470644 A, US4417853 A, US4371346 A, US4367413 A, US4364708 A, US4363525 A, US4350895 A, US4330714 A, US4323331 A, US4319865 A, US4302684 A, US4289970 A, US4275323 A, US4268095 A, US4211452 A, US4208168 A, US4154489 A, US4150301 A, US4122793 A, US4111601 A, US4090745 A, US4088352 A, US4049362 A, US4003678 A, US4003676 A, US4003076 A, US3995170 A, US3979619 A, US3976339 A, US3942839 A, US3912937 A, US3874816 A, US3761148 A, US3529193 A, US3510149 A, US3473852 A, US2827580 A, US2012139258 AA, US2012134815 AA, US2012060684 AA, US2011148115 AA, US2011076149 AA, US2011068729 AA, US2010295317 AA, US2010295307 AA, US2010266412 AA, US2010266407 AA, US2010264667 AA, US2010264663 AA,

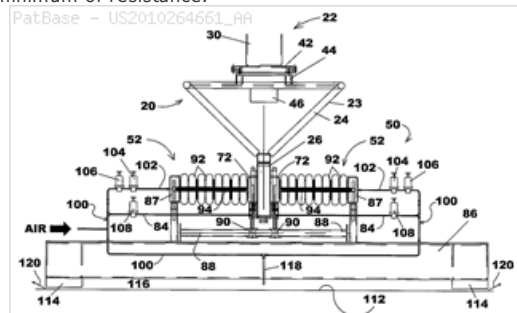
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Forward Citations:

WO17210362, WO17105663, WO17065782, WO16154757, WO15123925, WO15063761, WO12145041, WO12067647, WO12059463, WO12059463, WO11120521, US9989038, US9777707, US9752438, US9611831, US9500180, US9377008, US9362787, US9331534, US9279414, US9239038, US9175742, US9062654, US9018821, US8884458, US8816523, US8779618, US8776705, US8723402, US8704398, US8674538, US8659180, US8487471, US8441141, US8339019, US8328515, US8258645, US8257018, US8222762, US8178993, US8178987, US8174142, US8164212, US8134251, US8089167, US8007236, US7939961, US2018171966, US2017175713, US2016131107, US2015188391, US2015108757, US2015021915, US2015008676, US2014265344, US2014227095, US2014145446, US2013285501, US2013277983, US2013221673, US2013161960, US2013055944, US2012269628, US2012257969, US2012256423, US2012212111, US2012139258, US2012112465, US2012091719, US2012038169, US2011233938, US2011140454, US2011049902, US2011031760, US2010303623, US2010295317, US2010295307, US2010266407, US2010264663, US2010264662, US2010194116, US2010074760, US2009127864, US2008292467, US10066597, US10018182, KR101728307, GB2493166, FR2975445, EP3192738, CN107000835, CN103511177, CN102840104, CN102495637, CN102495637,

Abstract:

A wind **turbine** or other rotary device has its outer perimeter constructed with coils that form a rotor (26) of an electrical generator. A stator assembly (52) is positioned at the lower perimeter of the path of the rotor and includes stator halves that are juxtaposed the moving rotor for generating electricity. The stator halves include an air bearing that provides substantially frictionless contact with the rotor, allowing the free rotor to move with a minimum of resistance.



38) Family number: 30617642 (US2004104304A)

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Title: LIGHTER-THAN-AIR TWIN HULL HYBRID AIRSHIP
Priority: US20020415167P 20020930 US20030672760 20030927
Family:

Publication number	Publication date	Application number	Application date
US2004104304 AA	20040603	US20030672760	20030927
US6843448 BB	20050118	US20030672760	20030927

Probable Assignee: PARMLEY DANIEL W
Assignee(s):(std): PARMLEY DANIEL W
Inventor(s):(std): PARMLEY DANIEL W
Agent(s): KEITH L
International class B64B1/00 B64B1/22 B64B1/58 (Advanced/Invention);
(IPC 8-9): B64B1/00 (Core/Invention)
International class B64B1/02 B64B1/06
(IPC 1-7):
CPC: B64B1/005 B64B1/22 B64B1/58
European class: B64B1/00A B64B1/22 B64B1/58
US class: 244/125 244/30 244/96

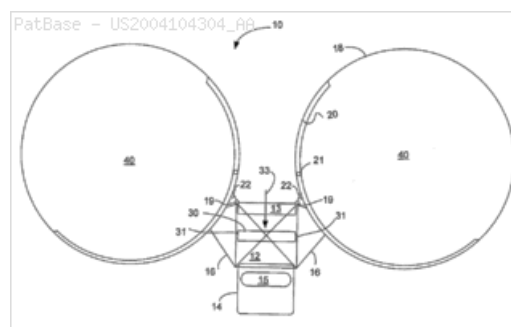
[Classification Explorer](#)

Cited documents: US889693 A, US6581873 BB,

Forward Citations: WO16065973, WO14043789, WO14020106, WO13050850, WO12021581, WO07079788, WO07022386, WO07022386, US9964629, US9908608, US9823663, US9782434, US9642876, US9623949, US9527569, US9498548, US9493223, US9168318, US9139279, US9102391, US9072726, US8973865, US8840873, US8834445, US8820681, US8643209, US8622337, US8336810, US8323252, US8147444, US8062500, US8061647, US7862198, US7442288, US7350746, US7090753, US2016185435, US2015028154, US2014158818, US2013043687, US2013037650, US2012037748, US2011240794, US2010102164, US2010092399, US2009196039, US2008116315, US2007196434, US2007173755, US2006272954, US2006241546, US2006235350, US2005258305, US2005196462, US2005139808, US2005121334, US2003056805, US10059421, US10016455, JP2009522170, ITUA20164109, FR2994167, FR2981055, CN104768847, AU2013317631, AU2013317631,

Abstract:

An airship is provided including a frame and first and second hulls pivotally connected to said frame. An airship second is provided including a frame, a gondola disposed within said frame, first and second hulls pivotally connected to said frame, and a propulsion system connected to said frame. Methods are provided for landing on water and refueling.



39) Family number: 52538649 (HR20110152A)

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Title: COMBINED SHIP POWER PLANT USING WIND AND SOLAR ENERGY KOMBINIRANI BRODSKI POGON S ENERGIJOM VJETRA I SUNCA

Priority: HR20110000152 20110228

Family:	Publication number	Publication date	Application number	Application date
	HR20110152 A2	20121130	HR20110000152	20110228

Probable Assignee: VRSALOVIC IVAN

Assignee(s):(std): VRSALOVIC IVAN

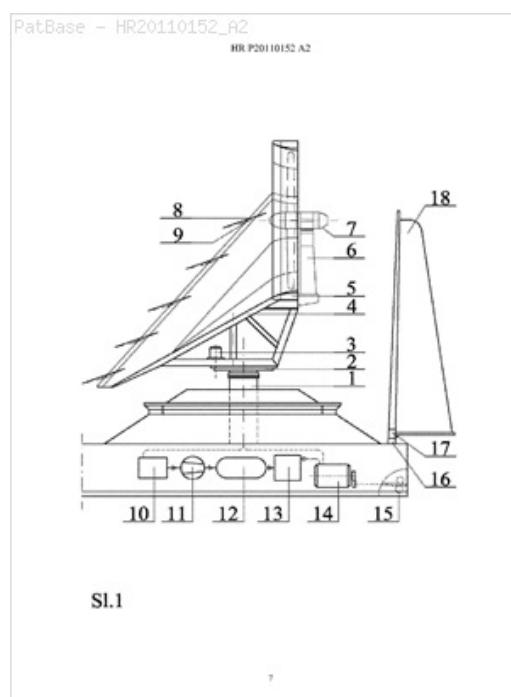
Inventor(s):(std): VRSALOVIC IVAN

International class B63H21/00 B63H9/00 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: HR20110152A [HR] Uspjesni i perspektivni brodski pogoni traze jeftinu, cistu i obnovljivu energiju. Takvu energiju i to iz dva obnovljiva izvora: sunca i vjetra mogu osigurati solarne celije (8), vjetroturbina (7) u kombiniranoj sapnici, zakretne brodske izvedbe na zajednickoj konstrukciji ugrađenoj na širokoj palubi brzog i ekonomičnog trimarana. Kombinirana sapnica je sastavljena od aerodinamički profiliranog kratkog plasta (5) grla sapnice i donje ravne, kose kolektorske plohe (4), koja sakuplja zračnu masu. Na tu donju kosinu ugrađuju se još i nosive plohe za solarne celije (8) sa zakretnim mehanizmom po vertikalni (9) radi optimalnog nagiba u svakom godišnjem dobu. Povećanje snage na turbini u sapnici raste po trećoj potenciji dvostruko povišene brzine na rotoru. Zakretne nosive plohe solarnih celija služe još i za regulaciju snage turbine, kod jakih vjetrova. Horizontalno zakretni mehanizam uz pomoć posebnog računala služi za optimalnu orijentaciju turbine prema vjetru i dnevnu prema suncu za solarne celije (3). Radi sigurnijeg, trajnijeg i jeftinijeg pogona na brodu su dodatno predviđeni: postrojenje elektrolize (10), kompresor (11), spremnik vodika (12) i goriva vodikova celija (13) uz standardne elektromotore (14) i propelere (15), te jarboli (16), mehanizmi (17) i jedra (18). **Machine translation:** Successful and promising the ship's thrusters are looking for a cheap, clean and renewable energy. That kind of energy, and that the two renewable sources: sun and wind can make solar cells (8), wind turbines (7) in a combined, sapnici use more equalisation on the ship's performance on the common design ugrađenoj širokoj on deck of rapid and ekonomičnog trimarana. Sapnica combined is composed of profiliranog APEL: short cloak (5) My throat sapnice and lower straight hair, collector's surfaces (4), which collects air mass. At that lower the beveling on machines just yet, and the bearing surfaces for solar cells (8) I don't know through mechanism by the vertical (9) for optimum slant in each annual age. the increase power on the turbine in the sapnici grows on a third of their potency povišene twice the speed limit on the roundabout. Use more equalisation on bearing surfaces of solar cells are still in control of forces turbines, with strong winds. Horizontally torque mechanism with the help of special computers for optimum turbines orientation toward the wind and the living toward the sun for solar cells (3). It's a safer, more sturdy and cheaper facility on the ship, they were never intended to further: electrolysis plant (10), the compressor (11), a tank of hydrogen (12) and the hydrogen fuel cell (13) standard electric motors (14) and the propellers (15), and the masts are (16), the mechanism (17) And the sail (18).



Title: FACILITY PROVIDING A CONTROLLED ENVIRONMENT FOR WATER SPORTS

Priority: US20040632222P 20041201 US20040632278P 20041201 US20050680365P 20050512
US20050681502P 20050516 US20050290905 20051130 US20050290906 20051130
US20060789000P 20060404 US20060433035 20060512 US20060434671 20060516
US20070878784P 20070106 US20070921537P 20070403 US20070732233 20070403
WO2007US08357 20070404 US20070786652 20070412 US20070894408 20070821
US20080062443 20080403 US20080286632 20081001 US20090387451 20090501
US20090586593 20090924

Family:	Publication number	Publication date	Application number	Application date
	IL194525 A0	20090803	IL20070194525	20070404
	US2006115329 AA	20060601	US20050290906	20051130
	US2006253969 AA	20061116	US20060433035	20060512
	US2006253970 AA	20061116	US20060434671	20060516
	US2007227049 AA	20071004	US20070732233	20070403
	US2008044230 AA	20080221	US20070894408	20070821
	US2008166187 AA	20080710	US20070786652	20070412
	US2008184473 AA	20080807	US20080062443	20080403
	US2009038067 AA	20090212	US20080286632	20081001
	US2009217451 AA	20090903	US20090387451	20090501
	US2010011497 AA	20100121	US20090586593	20090924
	US7438080 BB	20081021	US20070732233	20070403
	US7478441 BB	20090120	US20080062443	20080403
	US7722290 BB	20100525	US20070894408	20070821
	US8166582 BB	20120501	US20090387451	20090501
	US8375477 BB	20130219	US20090586593	20090924
	WO07114924 A2	20071011	WO2007US08357	20070404
	WO07114924 A3	20081016	WO2007US08357	20070404
	WO08088364 A1	20080724	WO2007US09123	20070413

Probable Assignee: GARRETT JOHNSON

Assignee(s):(std): GARRETT JOHNSON ; JOHNSON GARRETT ; JOHNSON GARRETT T ; JOHNSON GARRETT TYLER

Inventor(s):(std): JOHNSON GARRETT ; JOHNSON GARRETT TYLER ; JOHNSON GARRETT T

Agent(s): M BRUCE HARPER; WILLIAMS MULLEN; HARPER M BRUCE; M BRUCE

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A47K3/10 A61N1/39 A61N5/06 A63G31/00 B67D5/54 B67D7/72 E02B3/00 E02F3/88 E04H4/14 F04D35/00 G06K9/00 (Advanced/Invention); A47K3/10 A61N1/39 A61N5/06 A63G31/00 B67D7/06 E02B3/00 E02F3/88 E04H4/00 F04D35/00 G06K9/00 (Core/Invention); G06K (Subclass/Invention)

CPC: E04H4/0006 B63B35/73 B63B2035/855 A63B69/0093 A63B69/125 A63B2071/0063 A63C19/00 A63G3/02 Y10T137/3127 F04D35/00 E02F3/88 Y02A10/15 E02B3/062 A63G3/00 F04B35/00

European class: A63B69/12B A63C19/00 A63G3/00 B63B35/73 E02B3/06B E02F3/88 E04H4/00A F04B35/00 F04D35/00 K63B69/00U K63B71/00P K63B71/00P2 K63G3/02 L63B35/85W

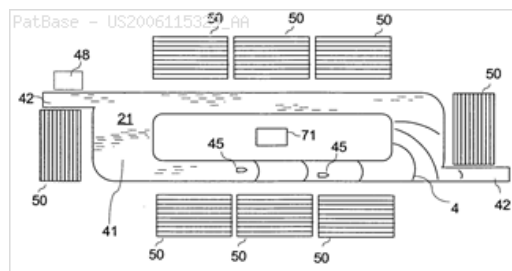
US class: 137/209 137/209S 37/317 373/170 4/491 4/491P 4/507 405/36 405/79 405/79P 406/79 417/118 417/86 472/128

[Classification Explorer](#)

Cited documents: US7497643 BB, US7478811 BB, US7478441 BB, US7285053 BB, US6964069 BB, US6928670 BB, US6920651 BB, US6912738 BB, US6857967 BB, US6738992 BB, US6715425 BA, US6640470 BB, US6460201 BA, US6336771 BA, US6224342 BA, US5911190 A, US5833893 A, US5833393 A, US5800272 A, US5766082 A, US5738590 A, US5720056 A, US5611671 A, US5544983 A, US5536210 A, US5535702 A, US5507601 A, US5503597 A, US5478208 A, US5421782 A, US5364208 A, US5282487 A, US5270056 A, US5267503 A, US5230662 A, US5226747 A, US5186578 A, US5098222 A, US4812077 A, US4805897 A, US4805896 A, US4720210 A, US4558474 A, US4522535 A, US4515500 A, US4421782 A, US4276664 A, US4174808 A, US3913332 A, US3802697 A, US2056855 A, US2008261858 AA, US2006253969 AA, US2006026746 AA, US2006022470 AA, US2004261858 AA, US2004198506 AA, US2004003749 AA, US2003106146 AA, US2001014256 AA, JP5231395 A2,

Forward Citations: WO17077156, WO15077704, WO15051168, WO09079605, US9808726, US9278808, US9198403, US8166582, US7993076, US7722290, US2018172173, US2017009406, US2010086356, US2009217451, US2008317451, US2008044230, KR101869215, EP3060729, AU2014329498,

Abstract:
A facility capable of hosting ocean water sports is situated in a geographic location that is accessible to spectators. The facility is capable of emulating the required ocean environment for a desired water sport within a water course, pool, or other large receptacle of water by use of scalable, non-interfering wave generators. Contemplated water sports range from offshore power boat racing to surfing. Location of the simulated environment enables sufficient spectator facilities in which admission may be controlled.



Title: FLOATING PONTOON ELECTRICITY GENERATING STATION ALSO INCORPORATES TOP-MOUNTED SOLAR PANELS AND WIND TURBINES SCHWIMMEND VERANKERTES ELEKTRIZITÄTSWERK

Priority: DE200620014721U 20060925

Family:

Publication number	Publication date	Application number	Application date
DE202006014721 U1	20070201	DE200620014721U	20060925

Probable Assignee: MIRWALD GUNTARD

Assignee(s):(std): MIRWALD GUNTARD

International class (IPC 8-9): E02B9/00 F03B7/00 F03D11/04 F03D9/00 (Advanced/Invention); E02B9/00 F03B7/00 F03D11/00 F03D9/00 (Core/Invention)

CPC: F03B13/264 F03B17/062 F05B2220/708 F05B2240/12 F05B2240/93 F05B2240/932 F05B2260/4031 Y02E10/28 Y02E10/725 F03D13/25 Y02E10/727

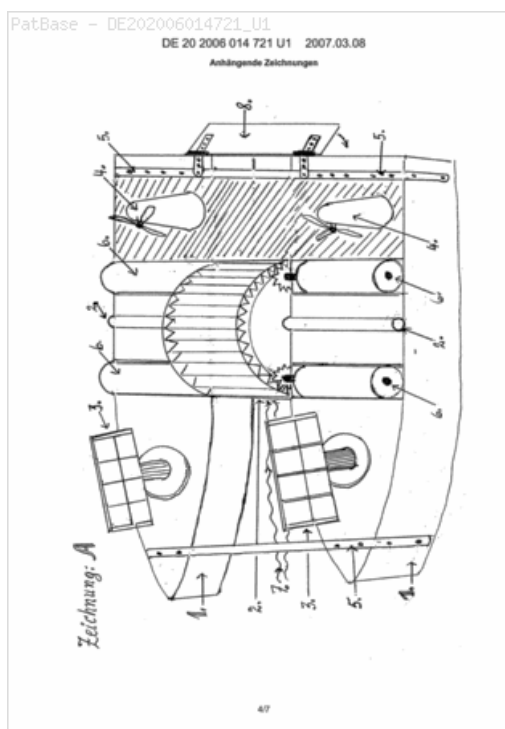
European class: R05B220/708 R05B240/12 R05B240/93 R05B240/932 R05B260/4031 Y02E10/22B Y02E10/28 Y02E10/72H

[Classification Explorer](#)

Forward Citations: WO11000207, WO10119283, WO10119283, WO09136784, WO09131460, WO09131460, WO09131459, WO09131459, WO09005383, NL1035400, DE102015121794, CN102202962, CN102202962, CN102060087,

Abstract:

A floating river electricity generator consists of a series of floats, boats or **catamarans** forming a pontoon between two riverbanks. Each unit has a paddle wheel with an inner ring of stainless steel teeth engaging with stainless steel pinion wheels attached to a generator shaft. Further claimed is that the pontoon may also be used as the support base for windmills or **solar** generator panels.



Title: METHOD OF DANGEROUS PHENOMENA (MAINLY, HURRICANE) AND GLOBAL WARNING WEAKENING

Priority: US20090386847 20090424 US20090590322 20091106

Family:

Publication number	Publication date	Application number	Application date
US2010270389 AA	20101028	US20090590322	20091106

Probable Assignee: FELDMAN BORIS

Assignee(s):(std): FELDMAN BORIS

Inventor(s):(std): FELDMAN BORIS

Agent(s): FELDMAN BORIS

International class (IPC 8-9): A01G15/00 (Advanced/Invention)

CPC: A01G15/00

European class: A01G15/00

US class: 239/14.1 239/14.100S 239/2.1 239/2.100P

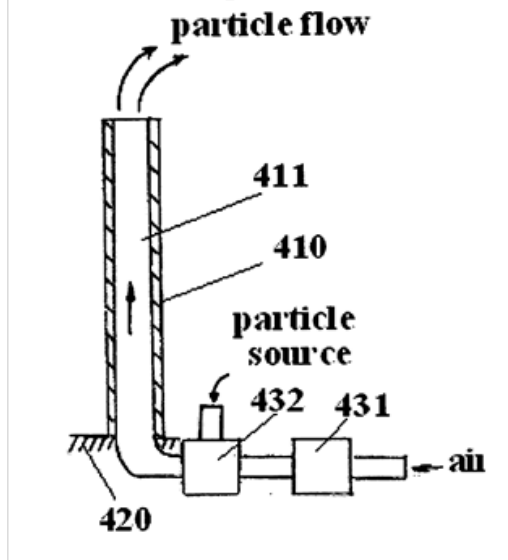
[Classification Explorer](#)

Cited documents: US7631506 BB, US6056203 A, US3658005 A, US2007114298 AA, US2002088364 AA,

Forward Citations: WO13155051, WO13078485, US9060102, US2016183480, US2015090805, US2012281054,

Abstract:

The method of gradual weakening of moving hurricane which prevents to gain in maximum energy and some means useful at protection against hurricanes and global warming weakening are offered.

**43) Family number: 30320852** (US2005258305A)

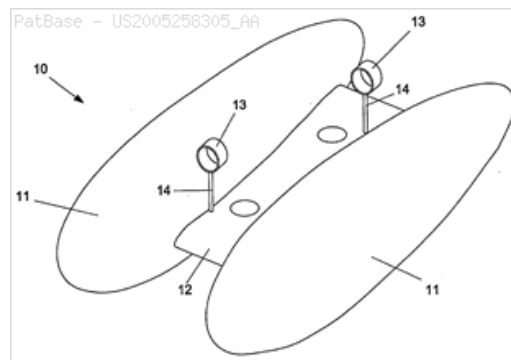
© PatBase

Title: DUAL HULL AIRSHIP CONTROLLED BY THRUST VECTORING**Priority:** IT2002MI01815 20020809 WO2003EP08950 20030811

Family:	Publication number	Publication date	Application number	Application date
	AT334042 E	20060815	AT20030787773T	20030811
	AU2003255426 AA	20040303	AU20030255426	20030811
	AU2003255426 AH	20040303	AU20030255426	20030811
	CA2493466 AA	20050121	CA20032493466	20030811
	CA2493466 C	20121211	CA20032493466	20030811
	DE60307123 D1	20060907	DE20036007123	20030811
	DE60307123 D1	20060907	DE20036007123T	20030811
	DE60307123 T2	20070222	DE20036007123T	20030811
	EP1551706 A1	20050713	EP20030787773	20030811
	EP1551706 B1	20060726	EP20030787773	20030811
	ES2270148 T3	20070401	ES20030787773T	20030811
	ITMI20021815 A1	20040210	IT2002MI01815	20020809
	PT1551706 T	20061229	PT20030787773T	20030811
	US2005258305 AA	20051124	US20030523238	20030811
	US7350746 BB	20080401	US20030523238	20030811
	WO04016503 A1	20040226	WO2003EP08950	20030811

Probable Assignee: NAUTILUS SPA**Assignee(s):(std):** BATTIPEDE MANUELA ; GILI PIERO ; ICARDI UGO ; NAUTILUS S P A ; NAUTILUS S R L ; PIERS GILI ; TORINO POLITECNICO ; RUOTOLO ROMUALDO ; VERCESI PIERCARLO**Assignee(s):** POLITECNICO DI TORINO ; NAUTILUS SPA ; NAUTILUS SRL**Inventor(s):(std):** BATTIPEDE MANUELA ; GILI PIERO ; ICARDI UGO ; RUOTOLO ROMUALDO ; VERCESI PIERCARLO ; PIERS GILI**Inventor(s):** PIERO GILI ; PIERCARLO VERCESI ; MANUELA BATTIPEDE ; UGO ICARDI ; ROMUALDO RUOTOLO**Agent(s):** MARKS AND CLERK; HEDMAN AND COSTIGAN PC**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW**International class (IPC 8-9):** B64B1/00 B64B1/02 B64B1/06 B64B1/24 B64B1/62 B64B1/68 (Advanced/Invention); B64B1/00 (Core/Invention); B64B (Subclass/Invention)**International class (IPC 1-7):** B64B1/02 B64B1/24 B64B1/34**CPC:** B64B1/06 B64B1/24 B64B1/62**European class:** B64B1/06 B64B1/24 B64B1/62**US class:** 244/26 244/30 244/56[Classification Explorer](#)**Cited documents:** WO8910868 A1, US6843448 BB, US6837458 BB, US6527223 BA, US6427943 BB, US6371409 BA, US5538203 A, US5383627 A, US5240206 A, US1808132 A, FR2612878 A1, EP0583666 A1,**Forward Citations:** WO14096559, WO08110385, WO08110385, USD635083, US9988138, US9126669, US8931739, US8783625, US8783603, US8727280, US8643209, US8622338, US8622337, US8505847, US8245966, US8167236, US7891603, US2016107094, US2014255139, US2014158818, US2013043687, US2012199693, US2011240794, US2010270424, US2010224722, US2009127385, US2008116315,**Abstract:**

A highly maneuverable aircraft with aerostatic lift consists, in particular, of a non-rigid airship (10) which can be piloted or radio-controlled; the airship (10) is sustained by helium and consists of two spindle-shaped elements side by side (11) joined by a connecting structure (12) to form a characteristic **catamaran** shape, without deflecting aerodynamic control surfaces as the command system consists of a set of several adjustable electric motors, each driving a variable-pitch **propeller** (13).



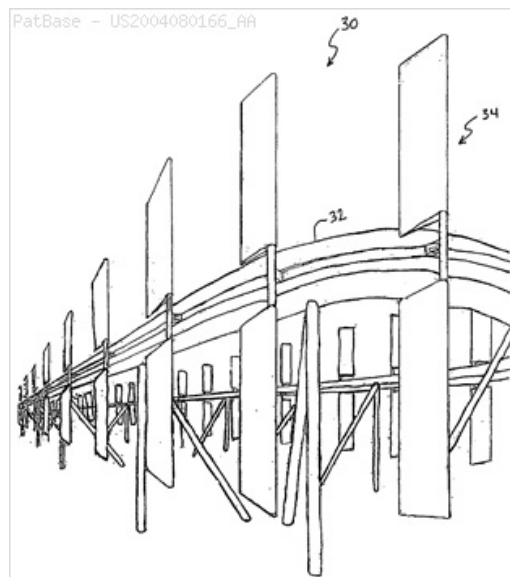
44) Family number: 16048932 (US2004080166A)

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Title:	POWER GENERATION ASSEMBLY																																																				
Priority:	US20000215794P 20000705 US20030467589 20030807		US20010467589 20010703 US20060485181 20060711		WO2001US21553 20010703 US20070974685 20071015																																																
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td>AU2001278880 AA</td><td>20020114</td><td>AU20010278880</td><td>20010703</td></tr><tr><td>AU200178880 A1</td><td>20020114</td><td>AU20010078880</td><td>20010703</td></tr><tr><td>AU200178880 A5</td><td>20020114</td><td>AU20010078880</td><td>20010703</td></tr><tr><td>US2004080166 AA</td><td>20040429</td><td>US20030467589</td><td>20030807</td></tr><tr><td>US2008157526 AA</td><td>20080703</td><td>US20070974685</td><td>20071015</td></tr><tr><td>US7075191 BB</td><td>20060711</td><td>US20010467589</td><td>20010703</td></tr><tr><td>US7902684 BB</td><td>20110308</td><td>US20070974685</td><td>20071015</td></tr><tr><td>WO0202934 A1</td><td>20020110</td><td>WO2001US21553</td><td>20010703</td></tr><tr><td>WO0202934 C1</td><td>20020207</td><td>WO2001US21553</td><td>20010703</td></tr><tr><td>WO09052202 A2</td><td>20090423</td><td>WO2008US80025</td><td>20081015</td></tr><tr><td>WO09052202 A3</td><td>20090702</td><td>WO2008US80025</td><td>20081015</td></tr></table>					Publication number	Publication date	Application number	Application date	AU2001278880 AA	20020114	AU20010278880	20010703	AU200178880 A1	20020114	AU20010078880	20010703	AU200178880 A5	20020114	AU20010078880	20010703	US2004080166 AA	20040429	US20030467589	20030807	US2008157526 AA	20080703	US20070974685	20071015	US7075191 BB	20060711	US20010467589	20010703	US7902684 BB	20110308	US20070974685	20071015	WO0202934 A1	20020110	WO2001US21553	20010703	WO0202934 C1	20020207	WO2001US21553	20010703	WO09052202 A2	20090423	WO2008US80025	20081015	WO09052202 A3	20090702	WO2008US80025	20081015
Publication number	Publication date	Application number	Application date																																																		
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Probable Assignee:	LANDERS ENERGY INC																																																				
Assignee(s):(std):	DAVIDSON FRED E ; DAVISON FRED E ; DAVISON GARY ; ENVIRONMENTAL ENERGY SYSTEMS I ; ENVIRONMENTAL ENERGY SYSTEMS INC																																																				
Assignee(s):	LANDERS ENERGY INC ; DAVISON GARY J																																																				
Inventor(s):(std):	DAVISON FRED E ; DAVISON GARY ; DAVIDSON FRED E																																																				
Inventor(s):	FRED E DAVISON																																																				
Agent(s):	THORPE NORTH AND WESTERN LLP; JONES JASON R ET AL																																																				
Designated states:	AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW																																																				
International class (IPC 8-9):	B61B13/04 B61B13/12 B61D43/00 F03B13/00 F03B13/10 F03B17/00 F03B17/06 F03D5/00 F03D5/02 F03D5/04 F03D9/00 H02P9/04 (Advanced/Invention); B61B13/04 B61B13/12 B61D43/00 F03B13/00 F03B17/00 F03D5/00 F03D9/00 (Core/Invention)																																																				
International class (IPC 1-7):	F03B13/10 F03B13/12 F03D9/00 H02P9/04																																																				
CPC:	F03B17/066 F03D5/02 F03D13/20 F03B17/064 F03D5/04 F05B2210/16 F05B2240/917 F05B2240/932 Y02E10/28 Y02E10/70 Y02E10/725 Y02E10/727 Y02E10/728 F03D9/25 F03D13/25																																																				
European class:	F03B17/06C2B F03B17/06C3A F03D11/04 F03D5/02 F03D5/04 R05B210/16 R05B240/917 R05B240/932 Y02E10/28 Y02E10/70 Y02E10/72H Y02E10/72L Y02E10/72N																																																				
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Cited documents:	US7276810 BB, US7075191 BB, US6672522 BB, US6672522 BA, US6629815 BB, US6629815 BA, US5992341 A, US5758911 A, US5386146 A, US5350273 A, US5313103 A, US5134305 A, US4859146 A, US4832569 A, US4589344 A, US4170738 A, US4163905 A, US4144817 A, US3950952 A, US3927330 A, US3916797 A, US3902432 A, US3730643 A, US3550535 A, US3548122 A, US2008042444 AA, US2006131890 AA, US2004168604 AA, US2004164562 AA, US1923971 A,																																																				
Forward Citations:	WO16145754, WO16130438, WO16109895, WO11060265, WO11060265, WO10102005, WO10102005, WO09122428, WO09122428, WO09052202, WO09052202, WO08148346, WO07146155, WO07146155, US9897071, US9777709, US9651027, US9581135, US9562518, US9534578, US9394883, US9366226, US9359991, US9341161, US9126683, US9121387, US8994203, US8950710, US8866325, US8754541, US8618682, US8601966, US8534057, US8362631, US8253264, US8206106, US8164213, US8076791, US7964984, US7902684, US7847425, US7750491, US7714457, US7709971, US7654082, US7650749, US7604454, US7453166, US7146918, US2018223802, US2018080433, US2015308409, US2015240782, US2015240781, US2014152018, US2012261926, US2012132117, US2012068465, US2011198857, US2011148120, US2011115231, US2011101697, US2011062715, US2011018280, US2010244452, US2010158697, US2010060008, US2009224552, US2009127862, US2009127861, US2009096216, US2009045634, US2008304965, US2008272599, US2008157526, US2008042444, US2007278796, US2007095061, US2006192389, US2005252764, US10060473, KR101226018, JP2009540194, EP3359808, EP3256722, EP2499356, EP2078853, DE102009026143, DE102007003323, CN107429662, CN103291534, CN102612596, CN102612596, CN102410143, CN101749182, AU2007258456,																																																				

Abstract:

A power generation assembly (30) for use in generating electrical power from air or water currents is disclosed. The power generation assembly (30) includes a rail system (32), a vane assembly (34), having a frame (36) and at least one vane (38) and a car assembly (40), slidably mounted to the rail (32), including a linkage portion (42) coupled to the frame (36). A power-take-off device (50) is pivotally coupled to the car (40) and engages a pair of drive wheels (54) which are coupled to a generator (62).



45) Family number: 31720935 (US2002100836A)

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Title: HYDROGEN AND OXYGEN BATTERY, OR HUDROGEN AND OXYGEN TO FIRE A COMBUSTION ENGINE AND/OR FOR COMMERCE.

Priority: US20010774110 20010131 CA20032436299 20030731

Family:	Publication number	Publication date	Application number	Application date
	CA2436299 AA	20050131	CA20032436299	20030731
	US2002100836 AA	20020801	US20010774110	20010131

Probable Assignee: HUNT ROBERT DANIEL

Assignee(s):(std): HUNT ROBERT DANIEL

Inventor(s):(std): HUNT ROBERT DANIEL

Agent(s): BORDEN LADNER GERVAIS LLP

International class (IPC 8-9): B01D53/22 B01J19/00 B60K8/00 B63G8/08 B63H21/00 F02B43/10 F02C3/28 F02M21/02 F02M25/12 F02P23/04 F02P9/00 F03H5/00 F03H99/00 H01M8/06 (Advanced/Invention); H04Q11/00 (Advanced/Non-invention); B63G8/00 B63H21/00 F02B43/00 F02C3/26 F02M21/02 F02M25/00 F02P23/00 F02P9/00 F03H99/00 (Core/Invention); H04Q11/00 (Core/Non-invention)

International class (IPC 1-7): B01D53/22 B01J19/00 B60K8/00 B64C25/50 H01M8/06

CPC: F02M21/0206 F02M21/0227 F02M21/023 F02M21/0275 F02M21/029 F03H99/00 B63G8/08 B63G2008/105 B63H21/00 C01B3/042 C01B13/0207 F02B43/10 F02C3/28 F02M25/12 F02P9/007 F02P23/04 H04Q2011/0081 Y02T10/121 Y02T10/32 Y02T50/671 Y02T70/5209 Y02T90/46 Y02E60/364 Y02T90/42

European class: B63G8/08 B63H21/00 C01B13/02B2 C01B3/04B F02B43/10 F02C3/28 F02M21/02 F02M25/12 F02P23/04 F02P9/00A3 F03H99/00 L63G8/10W T04Q11/00P4M1 Y02T50/67B Y02T70/52B Y02T90/46

US class: 244/5 244/50 244/50P

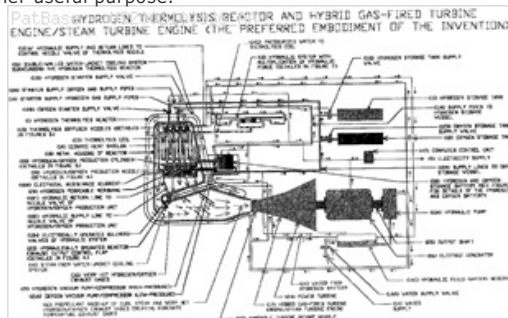
[Classification Explorer](#)

Forward Citations: WO16148319, WO16022186, WO13164601, WO13164601, WO12118809, WO12118809, WO10144907, WO09009496, WO07037763, WO05012165, WO05012165, USD819965, US9994450, US9850008, US9810423, US9777629, US9488100, US9102529, US8906137, US8852821, US8815209, US8696795, US8408351, US8367271, US8293079, US8202668, US8202667, US8178250, US8136740, US8106293, US7748137, US7614376, US7547483, US7384619, US6834831, US2017074213, US2015345386, US2015060604, US2015033745, US2013247886, US2013213227, US2013052598, US2012247329, US2012152639, US2011233067, US2011174277, US2011052451, US2010314878, US2010288212, US2010076185, US2010051472, US2010037944, US2010037943, US2010037937, US2009208802, US2009208791, US2009148734, US2009114733, US2009095237, US2009071166, US2009038958, US2008245654, US2006073368, US2006048808, US2004265137, US2004069897, TWI385850, TWI357950, RU2494004, GB2541033, GB2501691, ES2317728, EP2167422, EP2167422, CN102980770, CN102767497, CN102767497, CN102252848, AU2012202058,

Abstract:

The present invention is directed to a method of and an apparatus for the disassociation of water into hydrogen and oxygen via a thermolysis, heat/ignition process. The hydrogen and oxygen produced may be burned as fuel in a hydrogen thermolysis reactor to provide propellant for a **turbine** or to provide heat to generate steam for a steam engine or may be combusted in a combustion engine. The present invention can produce heat for space heat for buildings and for manufacturing, etc. or can produce mechanical drive that can generate electricity, power hydraulic systems, or provide thrust to propel airplanes, spaceships, rockets or submarines (which have their own oxygen supply for combustion in outer space or underwater from the oxygen contained in the water converted into hydrogen and oxygen) and can provide the energy needed to power automobiles, trucks, buses, trains, boats, etc. A heat/ignition process is utilized to accomplish complete thermolysis and burning of water: A thermolysis coil located at the core of the hydrogen thermolysis reactor preheats the water under pressure until it reaches a temperature of approximately 2500 deg. F., without intense pressure the water would become gaseous; and, the water is heated by a resistance electrical current or by masers and/or by lasers before it is ejected from the coil and becomes heated to approximately 5000 deg. F. Most of the water will dissociate into hydrogen and oxygen within the liquid state due to extreme temperature and pressure, according to the Second Law of Thermodynamics; and, in the final step the water is ejected from the high-pressure, high-temperature thermolysis coil into a vacuum zone of negative-pressure and high-temperature created by a hydraulically operated vacuum **turbine** within the thermolysis nozzle and is transformed into fuel plasma containing atomic hydrogen and atomic oxygen. The plasma passes through an electric arc capable of temperatures up to 90,000 deg. F. or passes through laser beams capable of temperatures of up to one million deg. F. within the vacuum inside the thermolysis nozzle and the hydrogen and oxygen is further heated and is ignited by the electric arc or laser beams. The burning hydrogen and oxygen is diffused into the hydrogen thermolysis reactor's core by the vacuum **turbine**. A self-sustained cycle is created because the

hydrogen and oxygen (disassociated water) that burns provides the heat/energy to perform work, including the generation of electricity for the resistance electrical current or masers and/or lasers and electric arc or lasers, and to heat additional water in the thermolysis coil and enormous quantities of excess energy for any other useful purpose.



46) Family number: 43255946 (US2009127862A)

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Title: WIND ENERGY HARVESTING SYSTEM ON A FROZEN SURFACE

Priority: US20070986241 20071121 CA20082644942 20081117

Family:	Publication number	Publication date	Application number	Application date
	CA2644942 AA	20090521	CA20082644942	20081117
	CA2644942 C	20120807	CA20082644942	20081117
	US2009127862 AA	20090521	US20070986241	20071121
	US7714457 BB	20100511	US20070986241	20071121

Probable Assignee: RIC ENTPR

Assignee(s):(std): RIC ENTPR ; RSV INV ENTPR ; SANKRITHI MITHRA

Assignee(s): RIC ENTERPRISES ; RSV INVENTION ENTERPRISES

Inventor(s):(std): SANKRITHI MITHRA ; SANKRITHI MITHRA M K V

Inventor(s): SANKRITHI MITHRA MKV

Agent(s): NA; MITHRA SANKRITHI

International class
(IPC 8-9): F03D5/02 F03D5/04 F03D9/00 F03D9/02 H02P9/04 (Advanced/Invention);
F03B13/00 F03B13/10 (Advanced/Non-invention);
F03D9/00 (Core/Invention)

CPC: F03D3/067 F03D5/02 F05B2240/311 F05B2240/90 F05B2240/93 Y02E10/70 Y02E10/74

European class: F03D3/06E6 F03D5/02 R05B240/311 R05B240/90 R05B240/93 Y02E10/70 Y02E10/74

US class: 290/43 290/44 290/54 290/55

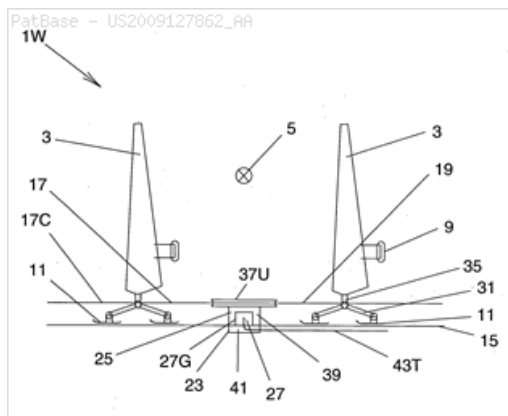
[Classification Explorer](#)

Cited documents: US7604454 BB, US7298056 BB, US7075191 BB, US6992402 BB, US6956300 BB, US6779473 BA, US6740988 BB, US6672522 BB, US5992341 A, US5758911 A, US5684335 A, US5193978 A, US5134305 A, US5119748 A, US4993348 A, US4859146 A, US4832569 A, US4756666 A, US4677928 A, US4589344 A, US4527950 A, US4302684 A, US4168439 A, US4032257 A, US3730643 A, US3504988 A, US2009127861 AA, US2008240864 AA, US2008157526 AA, US2004164562 AA, US2004080166 AA, US1923971 A,

Forward Citations: WO15176611, WO14194136, WO13185057, US9777709, US9709028, US8937399, US8864064, US8788107, US8598721, US8253264, US7750491, US2016344260, US2014377066, US2012068465, US2011198857, US2011192938, US2011133482, US2011077787, US2009127861, ITFI20110088, EP3147500, CN104508297,

Abstract:

The invention provides an environmentally friendly renewable energy harvesting system for harvesting wind energy on a frozen surface, as in cold weather climatic regions associated with higher latitudes or higher altitudes, with snow or ice surfaces. A plurality of ski, skate or runner supported wings or sails are connected together to form a wind energy harvesting system, and capture wind energy by appropriate setting of wing or sail angles of attack so as to drive a cyclic motion that in turn can drive energy capture means such as electric generator means. The invention thus provides a wind energy harvesting system which is supported by a frozen surface, which includes fluid-foil means for interfacing with an air current such as a wind and which includes energy harvesting means utilizing periodic motion of the fluid-foil means for capturing wind energy and converting it into usable energy in a desired form such as electricity. The present invention is intended to provide devices, methods and systems for harvesting renewable energy which can be efficient and cost-effective for small-scale, medium-scale and large-scale applications, to provide real and substantial benefits to meet local energy needs while also more broadly serving humanity and our global environment.



Title: FLUID-DYNAMIC RENEWABLE ENERGY HARVESTING SYSTEM

Priority: US20070986240 20071121

Family:	Publication number	Publication date	Application number	Application date
	US2009127861 AA	20090521	US20070986240	20071121
	US7750491 BB	20100706	US20070986240	20071121

Probable Assignee: RIC ENTPR

Assignee(s):(std): RIC ENTPR ; RSV INV ENTPR

Assignee(s): RSV INVENTION ENTERPRISES ; RIC ENTERPRISES

Inventor(s):(std): SANKRITHI MITHRA M K V

Inventor(s): SANKRITHI MITHRA MKV

Agent(s): MITHRA SANKRITHI

International class	F03B13/00 F03B13/10 F03D9/00 H02P9/04 (Advanced/Invention);
(IPC 8-9):	F03B13/10 F03D9/00 (Advanced/Non-invention);
	F03B13/00 F03D9/00 H02P9/04 (Core/Invention);
	F03D9/00 (Core/Non-invention)

CPC: Y02E10/28 F03D5/02 E02B2017/0091 F03B13/264 F05B2240/311 F05B2240/40 F05B2240/93
F05B2240/932 F05B2240/95 Y02E10/70 Y02E10/721

European class: F03B13/26C F03D5/02 P02B17/00M R05B240/311 R05B240/40 R05B240/93 R05B240/932 R05B240/95
Y02E10/20 Y02E10/70 Y02E10/72B

US class: 290/43 290/44 290/54 290/54P 290/55

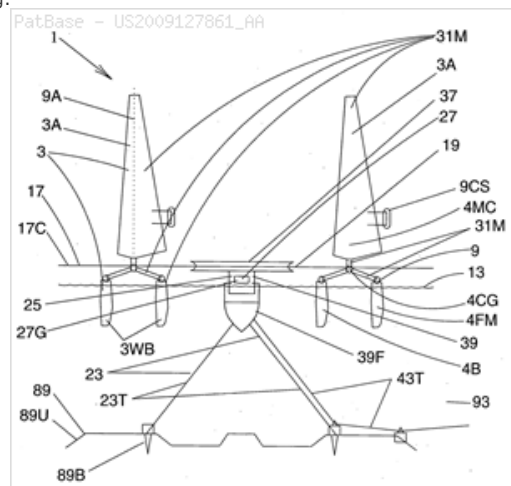
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Cited documents: US7604454 BB, US7298056 BB, US7075191 BB, US6956300 BB, US6779473 BA, US6740988 BB, US6691632 BB, US6578507 BA, US6341571 BA, US6216621 BA, US6016759 A, US5744871 A, US5684335 A, US5454339 A, US5168824 A, US5119748 A, US5063869 A, US4922845 A, US4859146 A, US4756666 A, US4677928 A, US4589344 A, US4572962 A, US4302684 A, US3789789 A, US3762353 A, US3730643 A, US3504988 A, US2387907 A, US2009218822 AA, US2009127862 AA, US2008240864 AA, US2008157526 AA, US2004080166 AA,

Forward Citations: WO16210189, WO14113809, WO11064214, WO11018747, WO11018747, WO10080885, US9896201, US9835131, US9777709, US9732724, US9563203, US9546643, US9404677, US8866325, US8864064, US8618682, US8253264, US7714457, US2017335822, US2016297506, US2016141911, US2016131104, US2015346726, US2015251754, US2015027545, US2014230571, US2011309634, US2011198857, US2011192938, US2011133482, US2011101697, US2010236939, US2010089766, US2009250937, US2009127862, US10106247, US10075045, US10067507, US10054048, CN102713262,

Abstract:

The invention provides a fluid-dynamic renewable energy harvesting system which includes fluid-foil means for interfacing with a fluid current such as a water current or wind or both, and which includes energy harvesting means utilizing fluid current driven periodic motion of the fluid-foil means for capturing fluid-dynamic renewable energy and converting it into usable energy in a desired form such as electricity. The invention provides devices, methods and systems for harvesting renewable energy for small-scale, medium-scale and large-scale applications, to provide real and substantial benefits towards efficiently fulfilling energy needs while also more broadly serving humanity and our global environment. The various embodiments of the invention provide energy with zero consumption of fossil fuels and zero emissions of greenhouse gases, and some selectively sited embodiments can beneficially counter global warming induced ice melting.



Title: HYBRID TRANSMISSION USING PLANETARY GEARSET FOR MULTIPLE SOURCES OF TORQUE FOR MARINE OR TWO WHEELED LAND VEHICLES

Priority:	US20100322244P 20100408	US20100369001P 20100729	US20100982130 20101230
	US20100982109 20101230	US20120421646 20120315	

Family:	Publication number	Publication date	Application number	Application date
	US2011281679 AA	20111117	US20100982109	20101230
	US2012149516 AA	20120614	US20100982130	20101230
	US2012329593 AA	20121227	US20120421646	20120315
	WO11127389 A2	20111013	WO2011US31753	20110408
	WO11127389 A3	20120202	WO2011US31753	201110408

Probable Assignee: UNIV COLORADO REGENTS

Assignee(s):(std): GAIDE DANIEL ; HAMBARGER CODY ; HILLERY DEREK ; HUMBARGER CODY ; KOSTER JEAN NICOLAS ; LARRABEE DANIEL ; MARSHMAN JOSHUA B ; SERANI ERIC ; PETERSEN ERIC ; RHODE MATTHEW ; RHOADE MATTHEW ; MARSHMAN JOSH ; RHODE MATT ; UNIV COLORADO ; WORMER THOMAS N ; VELAZCO ALEC ; UNIV COLORADO REGENTS ; WORMER THOMAS NORTHROP

Assignee(s): THE UNIV OF COLORADO A BODYCORPORATE ; UNIV OF COLORADO A BODY CORPORATE ; THE UNIV OF COLORADO ; THE UNIV OF COLORADO A BODY CORPORATE ; THE REGENTS OF THE UNIVERSITY OF COLORADO A BODYCORPORATE ; THE REGENTS OF THE UNIVERSITY OF COLORADO

Inventor(s):(std): GAIDE DANIEL ; HAMBARGER CODY ; HILLERY DEREK ; LARRABEE DANIEL ; KOSTER JEAN NICOLAS ; HUMBARGER CODY ; MARSHMAN JOSHUA B ; PETERSEN ERIC ; SERANI ERIC ; RHODE MATTHEW ; VELAZCO ALEC ; MARSHMAN JOSH ; RHODE MATT ; RHOADE MATTHEW ; WORMER THOMAS N ; WORMER THOMAS NORTHROP

Agent(s): TOWNSEND KEVIN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): F16H3/44 F16H3/72 F16H57/08 (Advanced/Invention)

CPC: B64D35/08 B60K6/365 B60K6/48 B64C39/024 B64C2201/042 B64C2201/044 B64C2201/165 B64D27/04 B64D27/24 B64D2027/026 F16H3/72 Y02T10/6221 Y02T50/44 Y02T50/64 B63H23/18

European class: B64C39/02C B64D27/04 B64D27/24 B64D35/08 F16H3/72 L60K6/365 L60K6/48 L64C201/04A L64C201/04B L64C201/16B L64D27/02C Y02T10/62F4 Y02T50/44 Y02T50/64

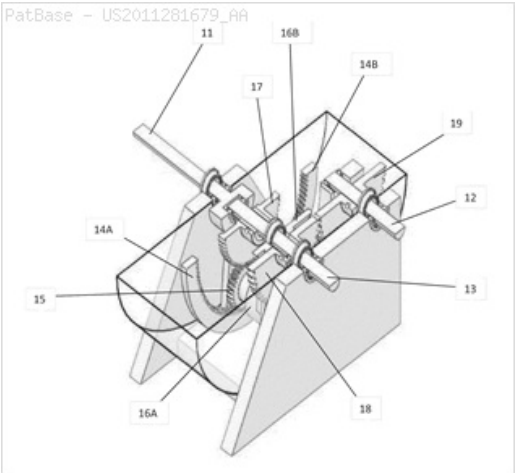
US class: 180/65.22 475/1 475/1S 475/331 475/331S 475/5 475/5P 903/902 903/910 903/910S

[Classification Explorer](#)

Cited documents: US7201690 BB, US7023216 BB, US4890508 A, US2006207812 AA, US2006063628 AA, US2005261097 AA, US2005241437 AA,

Forward Citations: WO16163917, WO15073084, WO14067506, USD822086, US9975417, US9947423, US9941723, US9881706, US9849979, US9829327, US9823654, US9768714, US9671781, US9664105, US9434473, US9331498, US9290266, US9219294, US9096295, US9051043, US8992361, US8983682, US8950539, US8948935, US8939399, US8930044, US8919483, US8909391, US8777801, US8651993, US8169100, US2016209225, US2016059949, US2016006378, US2015369696, US2015285165, US2015274287, US2015233284, US2014070760, US2013333958, US2013102431, US2013046427, US2013035197, US2009322088, US10138817, RU2653324, RU2556055, EP3222519, EP2692634, DE102017111822, DE102012021339, CN105857623, CN105691611, CN104903192, CN103569368,

Abstract:
Provided are alternative hybrid transmission systems for marine, or two wheeled land vehicles, as well as propulsion systems and vehicles comprising such transmission systems, to improve various propulsion systems using a combination of at least two power sources with the option for simultaneous or alternating power input from two or more power sources, while providing desired characteristics or components. Such characteristics or components can include, but are not limited to: power, torque, acceleration, cruising speed or power, fuel efficiency, battery charging, endurance, power sizing, weight, capacity, efficiency, speed, mechanically and/or electrically added system requirements, design, fuel selection, functional design, structural design, lift to drag ratio, weight, and/or other desired characteristic or component.



49) Family number: 50749976 (AU2009292602A) © PatBase

Title: A ZERO CO.2 EMISSION OFF SHORE CITY ELECTRICITY SUPPLY GENERATING SYSTEM

Priority: AU20090292602 20090601

Family:

Publication number	Publication date	Application number	Application date
AU2009292602 AA	20120301	AU20090292602	20090601

Probable Assignee: WAKELIN R

Assignee(s):(std): WAKELIN G ; WAKELIN R

Assignee(s): WAKELIN R L ; WAKELIN G R

Inventor(s):(std): WAKELIN CHRISTOPHER ROBERT ; WAKELIN ROBERT LESLIE

Agent(s): WAKELIN ROBERT LESLIE

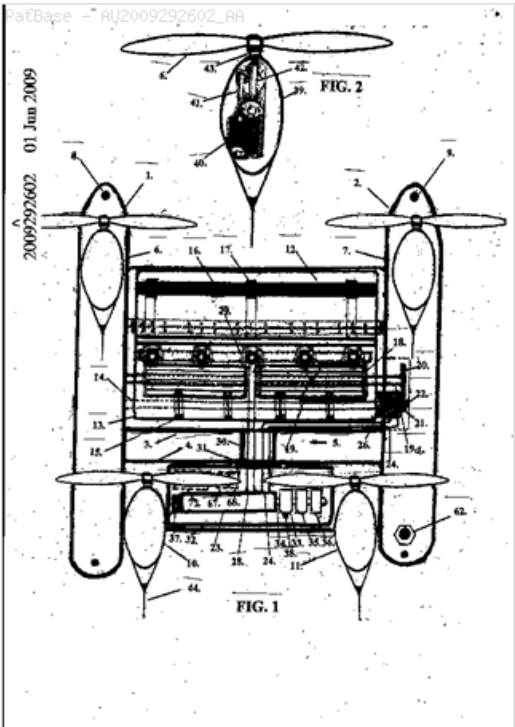
International class (IPC 8-9): F03D9/00 (Advanced/Invention)

CPC: Y02E10/725 Y02P80/158

[Classification Explorer](#)

Abstract:

The disclosed Zero CO₂ Emission, Off Shore City Electricity Supply Generating System is a self contained Electric Power Generating Platform suitably anchored at a predetermined visually and politically acceptable distance off or on shore designed to efficiently utilize by combining and converting a significant volume of the inherent immense power of the global ocean swell including tidal currents and wind energies on a continuous 24 hours every day basis into a substantial high voltage transmission source of electrical power to any specific area and or replace or augment the on-shore Metropolitan or National high voltage grid transmission systems adaptable singularly or as a extremely large complex operating as a totally green non polluting off - shore farm producing thousands of megawatts of electrical power from these natural ocean and planet environmentally friendly resources.



50) Family number: 61052977 (TN2010000493A) © PatBase

Title:

BATEAU A CHARIOT INTEGRE A LA COQUE ET A TRIPLE ENERGIE DE PROPULSION BOAT TROLLEY
INTEGRATED TRIPLE HULL AND PROPULSION ENERGY (Machine translation)

Priority:

TN20100000493 20101022

Family:

Publication number	Publication date	Application number	Application date
TN2010000493 A1	20120524	TN20100000493	20101022

Probable Assignee:

ECOLE NATIONALE D INGENIEURS DE SFAX ENIS

Assignee(s):(std):

ECOLE NATIONALE D INGENIEURS DE SFAX ENIS

Inventor(s):(std):

GUERGUI KANTCHEV

International class

B60P3/10 B63C13/00 B63H19/00 (Advanced/Invention)

(IPC 8-9):

Classification Explorer

Abstract:
Source: TN2010000493A [FR] L'objet de cette demande de brevet d'invention consiste a proposer une solution concernant un bateau a chariot integre a la coque et a triple energie de propulsion qui evite les inconvenients des solutions existantes et ameliore leurs caracteristiques (augmente l'autonomie de navigation, reduction des depenses en combustible, facilites de mise a l'eau, reduction de la pollution). Cette tache est resolue par: a) un dispositif qui presente un chariot a deux trains (avant et arriere) integres a la coque du bateau, b) une installation de propulsion alimentee par trois sources d'energies differentes et renouvelables (solaire photovoltaïque, eolienne, hydrogene). **Machine translation:** The purpose of this patent application is to propose a solution for a boat hull has integrated trolley and triple energy propulsion which avoids the disadvantages of existing solutions and improves their characteristics (increases the autonomy navigation, reduction in fuel expenditure, has facilities for making water, reduction of pollution). This task is resolved by: a) a device that presents a trolley two trains (front and rear) has integrated the hull, b) a propulsion system fed by three different sources and renewable energy (**solar** photovoltaic, wind **turbine**, hydrogen).

