

1) Family number: 48391228 (WO11024191A2)

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Title: PORTABLE FUEL STORAGE, BLENDING AND DISPENSING SKID WITH BUILT IN MULTI CHANNEL ELECTRONIC DOSING CONTROL SYSTEM

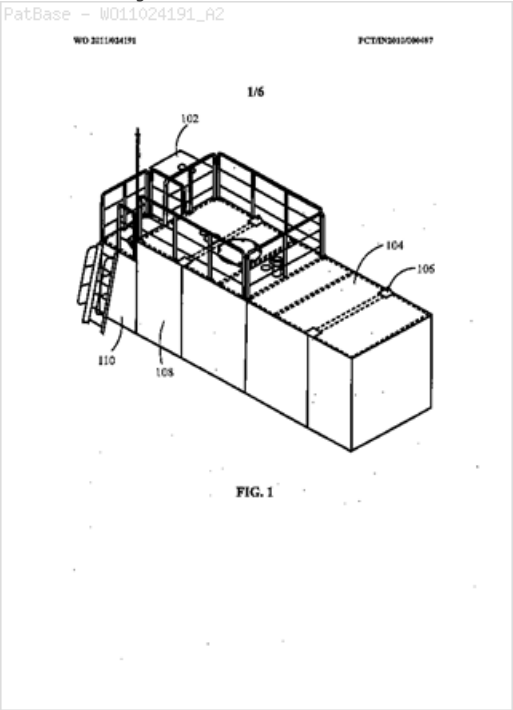
Abstract: The various embodiments herein provide portable fuel storage, blending and dispensing skid with built in multi channel electronic dosing control system. According to one embodiment, a common mixing line is attached to a dispensing pump, a hydrocarbon fuel pumping line, a bio fuel pumping line and an additive pump line. A flow gauge is mounted on the hydrocarbon fuel pumping line, the bio fuel pumping line and the additive pump line. A pump and a variable speed drive are provided on both the additive pumping line and the bio fuel pumping line. The system further includes a temperature sensor and a controller. The controller is provided with software to measure and adjust the flow rates of the bio fuel and the additive in real time using the variable speed drives to control the respective pump speeds to achieve a desired blending ratio.

Classifications:

International (IPC 8-9): B01F B67D7/04 G06F17/00 (Advanced/Invention); C10L1/00 (Advanced/Non-invention)

CPC: B60S5/02 B67D7/74 B67D7/78

European: B60S5/02 B67D7/74 B67D7/78 L67D7/74



Family:

Publication number	Publication date	Application number	Application date
IN01749CH2009 A	20120504	IN2009CH01749	20090724
WO11024191 A2	20110303	WO2010IN00487	20100723
WO11024191 A3	20110428	WO2010IN00487	20100723

Priority:

IN2009CH01749 20090724

Probable Assignee: FAT BIOFULES TECHNOLOGY PRIVATE LTD

Assignee(s): (std): FAT BIOFULES TECHNOLOGY PRIVATE LTD

Assignee(s): FAT BIO FUELS TECHNOLOGY PRIVATE LTD ; FAT BIOFULES TECHNOLOGY PRIVATE LIMITED

Inventor(s): (std): TYE MILSON ATKINSON

Inventor(s): MR TYE MILSON ATKINSON

Agent(s): PRABU RAKESH

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

2) Family number: 53572285 (US2014244051A)

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Title: DIRECT DRIVE FAN SYSTEM WITH VARIABLE PROCESS CONTROL

Abstract: The present invention is directed to a direct-drive fan system and a variable process control system for efficiently managing the operation of fans in a cooling system such as a wet-cooling tower or air-cooled heat exchanger (ACHE), HVAC systems, mechanical towers or chiller systems. The present invention is based on the integration of key features and characteristics such as tower thermal performance, fan speed and airflow, motor torque, fan pitch, fan speed, fan aerodynamic properties, and pump flow. The variable process control system processes feedback signals from multiple locations in order to control a high torque, variable speed, permanent magnet motor to drive the fan. Such feedback signals represent certain operating conditions including motor temperature, basin temperature, vibrations, and pump flow rates. Other data processed by the variable process control system in order to control the motor include turbine back pressure set-point, condenser temperature set-point and plant part-load setting. The variable process control system processes this data and the aforesaid feedback signals to optimize the operation of the cooling system in order to prevent disruption of the industrial process and prevent equipment (turbine) failure or trip. The variable process control system alerts the operators for the need to conduct maintenance actions to remedy deficient operating conditions such as condenser fouling. The variable process control system increases cooling for cracking crude and also adjusts the motor RPM, and hence the fan RPM, accordingly during plant part-load conditions in order to save energy.

Classifications:

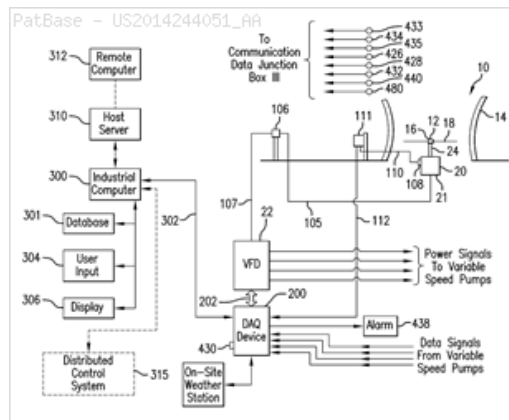
International (IPC 8-9): B01F3/04 F04D19/00 F04D25/06 F04D27/00 F04D29/00 F04D29/051 F04D29/059 F28C1/00 F28F25/10 F28F27/00 G05D27/02 H02K7/14 (Advanced/Invention); F28C1/00 (Advanced/Non-invention)

CPC: G05D27/02 F28F27/003 F28F25/10 F04D29/059 F04D29/002 F04D19/005 F04D29/051 F04D25/166 F04D25/08 F28F27/00 F28B1/06 B01F3/04078 F04D19/002 F04D25/0606 F04D27/004 F05D2220/766 F05D2220/768 F05D2260/20 F05D2260/70 F05D2260/821 F05D2260/96 F05D2270/3011 F05D2270/306 F05D2270/44 F05D2270/71 F28C1/00 Y02B30/748 Y02T50/675 F28B9/00 Y02P80/156

US: 700/275 700/282

JP F-Term: 3H021 3H021/AA08 3H021/BA20 3H021/CA01 3H021/CA03 3H021/DA04 3H021/DA17 3H021/EA05 3H021/EA12 3H021/EA14 3H021/EA17 3H021/EA20 3L067 5H607 5H607/BB01 5H607/BB07 5H607/BB09 5H607/BB14 5H607/BB25 5H607/CC01 5H607/CC05 5H607/DD03 5H607/DD14 5H607/FF04 5H607/GG01 5H607/GG02 5H607/GG08 5H607/HH01 5H607/HH03 3H021/AA01 3H021/BA12 3H021/CA06

JP F-Index: F04D27/00/101/B F04D27/00/101/N F04D27/00/101/P F28F27/00/501/A H02K7/14/A F04D27/00/101/M



Family:

Publication number	Publication date	Application number	Application date
AU2012325745 AA	20130425	AU20120325745	20121021
AU2012325745 BB	20180726	AU20120325745	20121021
AU2018253487 AA	20181122	AU20180253487	20181023
CA2851821 AA	20140410	CA20122851821	20121021
EP2776771 A1	20140917	EP20120842083	20121021
EP2776771 A4	20150722	EP20120842083	20121021
JP2015502513 A2	20150122	JP20140537348	20121021
JP2015502513 T2	20150122	JP20140537348T	20121021
JP2018084407 A2	20180531	JP20170236012	20171208
JP6277364 B2	20180214	JP20140537348T	20121021
JP6397558 B2	20180926	JP20170236012	20171208
SG11201401228X A1	20140627	SG20141101228	20121021
US2014244051 AA	20140828	US20120352050	20121021
US2018058463 AA	20180301	US20120548545	20121021
US2018373280 AA	20181227	US20180040439	20180719
US10031535 BB	20180724	US20120352050	20121021
WO13059764 A1	20130425	WO2012US61244	20121021
WO14210583 A1	20141231	WO2014US44767	20140628

Priority:

US20110549872P	20111021	AU20120325745	20121021	US20120352050	20121021
JP20140537348T	20121021	WO2012US61244	20121021	WO2016US61244	20121021
US20120548545	20121021	US20130840615P	20130628	US20140352050	20140415
JP20170236012	20171208	US20180040439	20180719	AU20180253487	20181023

Probable Assignee: PRIME DATUM INC A CORP

Assignee(s): (std): PRIME DATUM DEV CO LLC ; PRIME DATUM INC ; ROLLINS PATRICK ; PRIME DATUM INC A CORP

Assignee(s): PRIME DATUM DEVELOPMENT CO LLC ; COSTELLO JOSEPH ; LUCAS GEORGE

Inventor(s): (std): COSTELLO JOSEPH ; LUCAS GEORGE ; ROLLINS PATRICK ; ROLLINS PATRICK M ; LUCAS GEORGE M ; PATRICK ROLLINS ; JOSEPH COSTELLO ; GEORGE LUCAS

Agent(s): PEGASUS IP; IP SOLVED ANZ PTY LTD; MACRAE AND CO; MACLACHLAN AND DONALDSON; RAYMOND A; NUZZO RAYMOND A

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 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

3) Family number: 63123520 (WO16127136A1)

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Title: LOAD BEARING DIRECT DRIVE FAN SYSTEM WITH VARIABLE PROCESS CONTROL

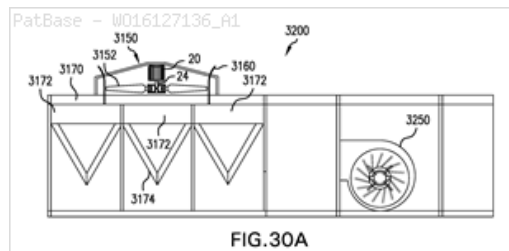
Abstract: The present invention is directed to a load bearing direct-drive system for driving a fan in a cooling system such as a wet-cooling tower, air-cooled heat exchanger, HVAC system, hybrid cooling tower, mechanical tower or chiller system. The

present invention includes a variable process control system that is based on the integration of key features and characteristics such as tower thermal performance, fan speed and airflow, motor torque, fan pitch, fan speed, fan aerodynamic properties, and pump flow. The variable process control system processes feedback signals from multiple locations in order to control a high torque, low variable speed, load bearing motor to drive the fan.

Classifications:

International (IPC 8-9): F04D29/059 F28F27/00 (Advanced/Invention)

CPC: F28B11/00 F28B1/06 F28F2250/08 F28F2265/30 F04D19/005 F04D27/004 F04D29/668 F04D29/059



Family:

Publication number	Publication date	Application number	Application date
AU2016215036 AA	20170921	AU20160215036	20160205
CA2978460 AA	20170831	CA20162978460	20160205
EP3254047 A1	20171213	EP20160747392	20160205
EP3254047 A4	20180228	EP20160747392	20160205
WO16127136 A1	20160811	WO2016US16895	20160205

Priority:

US20150113277P 20150206 WO2016US16895 20160205

Probable Assignee: PRIME DATUM DEV CO LLC

Assignee(s): (std): PRIME DATUM DEV CO LLC ; PRIME DATUM DEVELOPMENT CO LLC

Assignee(s): ROLLINS PATRICK M ; COSTELLO JOSEPH ; LUCAS GEORGE

Inventor(s): (std): COSTELLO JOSEPH ; LUCAS GEORGE ; ROLLINS PATRICK M

Agent(s): SHELSTON IP PTY LTD; BORDEN LADNER GERVAIS LLP; MACLACHLAN AND DONALDSON; NUZZO RAYMOND A

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

4) Family number: 57188641 (US2016069624A)

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Title: DIRECT-DRIVE SYSTEM FOR COOLING SYSTEM FANS, EXHAUST BLOWERS AND PUMPS

Abstract: The present invention is directed to a load bearing direct-drive system and a variable process control system for efficiently managing the operation of fans in a cooling system such as a wet-cooling tower, air-cooled heat exchanger (ACHE), HVAC system, blowers and centrifugal blowers, mechanical towers or chiller systems. In one embodiment, the load bearing direct-drive system comprises a load bearing torque multiplier device having an output rotatable shaft connected to a fan, and a load bearing motor comprising a rotatable shaft that drives the load bearing torque multiplier device.

Classifications:

International (IPC 8-9): F04D25/06 F04D25/08 F04D27/00 F04D29/58

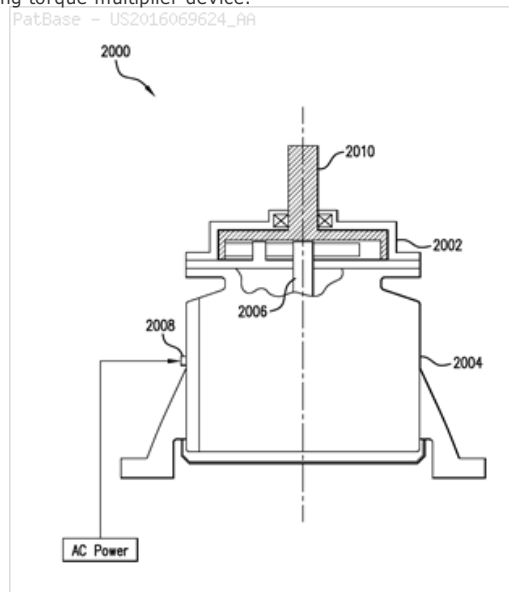
F28C1/00 F28F27/00 H02P27/04 (Advanced/Invention);

H02K9/06 H02P27/04 (Advanced/Non-invention)

CPC: F28F27/003 F04D25/06 F04D29/58 F04D27/004 F04D25/028

F04D25/08 Y02P80/156

US: 165/121 415/122.1 417/423.12



Family:

Publication number	Publication date	Application number	Application date
AU2014215568 AA	20150924	AU20140215568	20140203
AU2014215568 AA	20140814	AU20140215568	20140203
AU2014215568 BB	20190509	AU20140215568	20140203

CA2938948 AA	20160805	CA20142938948	20140203
EP2954274 A2	20151216	EP20140748702	20140203
EP2954274 A4	20170322	EP20140748702	20140203
US2016069624 AA	20160310	US20140766239	20140203
WO14123804 A2	20140814	WO2014US14408	20140203
WO14123804 A3	20141002	WO2014US14408	20140203

Priority:

US20130762891P 20130209 US20140766239 20140203 WO2014US14408 20140203

Probable Assignee: PRIME DATUM DEVELOPMENT CO LLC

Assignee(s): (std): PRIME DATUM DEV CO LLC ; PRIME DATUM DEVELOPMENT CO LLC ; ROLLINS PATRICK ; ROLLINS PATRICK M

Assignee(s): LUCAS GEORGE M

Inventor(s): (std): LUCAS GEORGE M ; ROLLINS PATRICK M

Agent(s): PEGASUS IP; IP SOLVED ANZ PTY LTD; MACRAE AND CO; MACLACHLAN AND DONALDSON; NUZZO RAYMOND A

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