

Search history

Search pn=WO2016153507 (Results 1)

1:

Search [SP]: 1. a surface excitation ranging method that comprises: installing a customized grounding arrangement for a power supply located at earth's surface, wherein the customized grounding arrangement fulfills an impedance criteria or ranging performance criteria conveying an electrical current output from the power supply along a target well with a metal casing sensing electromagnetic (em) fields emitted from the target well due to the electrical current and using distance or direction information obtained from the sensed em fields to guide drilling of a new well relative to the target well. 2. the method of claim 1, wherein installing the customized grounding arrangement comprises connecting the power supply to a metal casing installed in a well separate from the target well and the new well. 3. the method of claim 1, wherein installing the customized grounding arrangement comprises connecting the power supply to a ground stake deployed entirely below earth's surface. 4. the method of claim 3, further comprising drilling an open borehole or using an available open borehole to deploy the ground stake entirely below earth's surface. 5. the method of claim 3, further comprising drilling a pilot hole to deploy the ground stake entirely below earth's surface. 6. the method of claim 1, wherein installing the customized grounding arrangement comprises connecting the power supply to a grounding cable having an insulated portion and an exposed portion, and wherein the exposed portion is below earth's surface. 7. the method of claim 1, wherein installing the customized grounding arrangement comprises connecting the power supply to an elongated ground stake with an underground length that exceeds a predetermined threshold. 8. the method of claim 1, further comprising spacing the customized grounding arrangement from the target well based on predetermined distance or range criteria, and extending an insulated cable between the power supply and a grounding location below earth's surface. 9. the method according to claim 1, further comprising adjusting customized grounding arrangement options until an impedance is below a threshold associated with the impedance criteria. 10. the method according to claim 1, further comprising adjusting customized grounding arrangement options until a ranging signal-to-noise ratio (snr) is above a threshold associated with the ranging performance criteria. 11. a surface excitation ranging system that comprises: a power supply located at earth's surface a customized grounding arrangement for the power supply, wherein the customized grounding arrangement fulfills an impedance criteria or a ranging performance criteria a target well with a metal casing to convey an electrical current output from the power supply along its length at least one sensor to detect electromagnetic (em) fields emitted from the target well due to the electrical current and a directional drilling tool to drill a new well relative to the target well based on distance or direction information obtained from the detected em fields. 12. the system of claim 11, wherein the customized grounding arrangement comprises a metal casing installed in a well separate from the target well and the new well. 13. the system of claim 11, wherein the customized grounding arrangement comprises a ground stake deployed entirely below earth's surface. 14. the system of claim 13, wherein the ground stake is deployed entirely below earth's surface using an open borehole. 15. the system of claim 13, wherein the ground stake is deployed entirely below earth's surface using a pilot hole. 16. the system of claim 11, wherein the customized grounding arrangement comprises an elongated ground stake with an underground length that exceeds a predetermined threshold. 17. the system of claim 11, wherein the customized grounding arrangement comprises a grounding cable with an insulated portion and an exposed portion, wherein the exposed portion is below earth's surface. 18. the system of claim 11, wherein the customized grounding arrangement comprises an insulated cable that extends between the power supply and a location below earth's surface. 19. the system of claim 11, wherein the customized grounding arrangement is spaced from the target well based on predetermined distance or range criteria. 20. the system according to claim 11, further comprising a resistivity or conductivity logging tool to collect formation property measurements at one or more points along the target well, wherein the impedance criteria is based on the collected measurements. (Results 0)

Search [SP]: surface excitation ranging methods and systems employing a customized grounding arrangement a surface excitation ranging method includes installing a customized grounding arrangement for a power supply located at earth's surface, wherein the customized grounding arrangement fulfills an impedance criteria or ranging performance criteria. the method also includes conveying an electrical current output from the power supply along a target well with a metal casing. the method also includes sensing electromagnetic (em) fields emitted from the target well due to the electrical current. the method also includes using distance or direction information obtained from the sensed em fields to guide drilling of a new well relative to the target well. (Results 0)

Search grounding and arrangement (Results 55952)

4:

Search surface and exitation (Results 1080)

5:

Search 4 and 5 (Results 13)

6:

Search 6 and (EM or electromagnetic) (Results 7)

7:

Search 7 and (well or pit or shaft or hole or pool) (Results 7)

8:

Search 8 and drill or drilling (Results 1)

9:

Search 8 and (hydrocarbons) (Results 0)

10:

Search 8 and energy (Results 6)

11:

Title: METAL CASTING APPARATUS WITH **ELECTROMAGNETIC** NOZZLE

Abstract: ABSTRACT OF THE DISCLOSURE

A metal casting apparatus having a downwardly ex-tending nozzle forced with an axial flow passage there-through which communicates at the upper end thereof with a container so that molten metal in the container may flow out of the same through the axial flow passage of the nozzle, and in which **electromagnetic** means cooperate with an electric current which is passed through the stream of metal flowing through the nozzle and/or electrically conductive passages formed therein to control the flow of metal passing through the flow passage in dependence on the direction and magnitude of the electric current and the magnetic field produced by the **electromagnetic** means. B

Classifications:

International (ipc 8-9): B01F13/02 B01F5/00 B01F5/02 B22D11/18 B22D39/00 B22D41/14 F15C1/00 F15C1/04 F15C1/14 F15C1/20 F15C4/00 F27D3/18 G01F13/00 G01N1/00 G01N1/38 G01N15/00 G01N15/10 G01N15/12 G01N21/27 G01N21/31 G01N33/483 G01N33/49 G01N35/00 G01N35/02 G05D7/06 G06M11/00 H05B6/34 (Advanced/Invention); G01N15/10 G01N15/12 (Advanced/Non-invention); B01F13/00 B01F5/02 B22D11/18 B22D39/00 B22D41/14 F15C1/00 F27D3/00 G01F13/00 G01N1/00 G01N1/38 G01N15/00 G01N15/10 G01N21/25 G01N21/31 G01N33/483 G01N33/49 G01N35/00 G01N35/02 G05D7/06 G06M11/00 H05B6/02 (Core/Invention); G01N15/10 (Core/Non-invention)

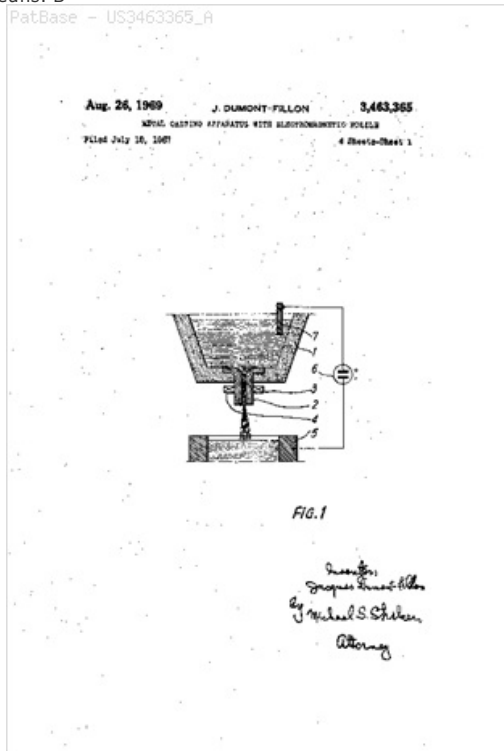
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CPC: B01F5/0057 B22D41/14 Y10T137/0318 Y10T137/2076 Y10T137/2142 Y10T137/2174 Y10T137/4643 G01F13/001 B01F5/02 B22D11/185 F15C1/00 F15C1/14 F27D3/18 G01F13/00 G01N35/1097 B01F13/0233 B22D11/186 B22D39/003 F15C1/04 F15C1/20 G01N1/38 G01N15/12 G01N15/1245 G01N35/00 G01N2015/1037 G05D7/0635 H05B6/34

European: 45L8E10 B01F5/00B B01F5/02 B22D11/18A3 B22D39/00A B22D41/14 F15C1/00 F15C1/04 F15C1/14 F15C1/20 F27D3/18 G01F13/00 G01F13/00B G01N1/00B1B G01N1/38 G01N15/12 G01N35/10V1 S01N15/10F S01N15/12C

US: 137/1 137/251.1 137/80.6 137/806 137/81.5 137/818 137/824 138/37 141/392 164/437 164/449.1 164/450.3 164/453 164/466 164/489 164/502 222/544 222/56 222/591 222/594 222/597 235/200PF 250/338.1 324/140R 324/71 324/71.1 335/284 356/39 422/81 436/70

PatBase - US3463365_A



Family:

Publication number	Publication date	Application number	Application date
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Priority:

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Agent(s): SELIGSOHN GABRIELI AND CO

Title: Magnetic tape transducer apparatus

Abstract: 854,083. Telegraphy. SMITH-CORONA MARCHANT Inc. Nov. 9, 1956 [Nov. 16, 1955], No. 34339/56. Class 40(3). The invention relates to a communication system, more particularly for use with aircraft, and like vehicles in which, in conjunction with a radio transmitter and receiver, there are provided a telegraph keyboard transmitter, a telegraph page printer and a storage unit comprising a magnetic tape recorder. The units are interconnected and associated with control means comprising a multi-position switch and relay switching circuits whereby the equipment may be operated to provide the following facilities: (1) transmission of messages from the keyboard with the printer monitoring the transmission, (2) transmission of messages recorded in the storage unit with the printer monitoring the transmission, (3) recording of messages from the keyboard unit in the storage unit with the printer monitoring the signals being recorded and (4) reception and printing of incoming messages. A call system is associated with the receiver whereby the printer may operate to print only messages which are preceded by a predetermined call sign. This system may be operated so that either messages identified by the call sign for a particular vehicle e.g. aircraft, or messages identified by a call sign for a group of aircraft, are printed. General. The system uses the normal five unit mark/space code combination, the stop signal being one and one-half elements and the element duration being 22 milliseconds. Operation proceeds under the control of a counting chain which times the signal elements the chain comprising eight stages which are triggered in sequence at element intervals, the seventh stage however being arranged to operate at half element intervals and serving in conjunction with the eighth stage to time the one and one-half element stop signal. Each keyboard operation sets up the five mark/space code conditions of a combination simultaneously, briefly thereafter closes a universal contact and locks the keyboard against further operation. The code conditions are presented simultaneously to the printer and storage unit and the universal contact initiates a cycle of operation of the counting chain. During transmission from the keyboard, the counting chain reads off and times the code conditions in sequence applies a transfer pulse from the first stage to the printer to cause printing and applies back an unlock pulse to the keyboard from the sixth stage. For recording keyboard messages in the storage unit, the universal contact also triggers the storage unit to make a cycle of operation, the storage unit including a commutator which transfers the code conditions sequentially into a recording head. The unlock pulse for the keyboard is made in this case to depend on the completion of the operating cycle in both the printer and storage unit. Transmission from the storage unit is effected by firstly transferring sequentially derived code elements via the commutator to a register circuit, where they are stored simultaneously, and then reading them out from the register sequentially for transmission under the control of the timing chain. The register conditions are also presented simultaneously to the printer, the timing chain furnishing a transfer pulse from the second stage to effect printing and a release pulse to the register from the seventh stage to clear it for a subsequent code combination. During reception of incoming messages, each start element initiates a cycle of the timing chain and causes the code elements to be read off and stored in magnetic memory cores. The core conditions are read out simultaneously to the register circuit by a pulse from the eighth stage of the counter and from there are presented to the printer. A transfer pulse to effect printing is also applied from the eighth stage via a delay circuit, and a release pulse applied to the register from the seventh stage. Details. The invention is described with reference to a circuit and wiring diagram for the complete system. This does not permit of abridgement as a whole, but the more important features of the invention are detailed in the following paragraphs. Transmitter keyboard circuit. Fig. 3 (not shown). Depression of a key displaces five code bars and causes simultaneous actuation of five contacts in accordance with the mark-space code combination of the signal to be transmitted. The contacts cause corresponding operation of a group of five code relays and the settings of the relays are then read off in sequence under the control of a timing chain (see below) and employed to control a relay which keys the radio transmitter. A universal bar, located at the back of the code bars, is operated each time a key is depressed and closes a contact slightly after the setting of the code bar contacts. The contact operates a relay and causes the application of a potential to a start gate in the counting chain to initiate a cycle of operation. Depression of any key also locks the keyboard against further operation until a release solenoid is energized. When the system is set up to transmit from the keyboard a signal to operate the release solenoid is obtained from the sixth stage of the counting chain. When the system is set up to record keyboard messages in the storage unit, a signal to operate the solenoid comes from the last to operate of a switch in the storage unit which closes when the recording head has completed its cycle of operation and a switch in the telegraph printer which closes when the main drive **shaft** is restored to its stop position. Provision is made to interrupt the circuit by a contact actuated when the end of the magnetic tape is reached. The keyboard is constructed so that holding a key depressed does not cause repeated transmission. The space bar however is arranged to permit repeated transmission by the provision of a contact actuated by the space bar which bypasses the contact controlled by the universal bar. An indicator lamp is provided on the keyboard which is operated by an end-of-line contact on the printer. A further lamp is provided controlled from a tape position contact in the storage unit to indicate when only five lines of capacity remain available. The keyboard mechanism Figs. 14-19 (not shown), forms the subject of Specification 854,084. Telegraph printer circuit, Fig. 5. The printer is a type-wheel page printing unit in which the typewheel is located behind the recording medium which is in the form of paper bearing a black material which is in turn covered by light material on the operative face. The printing hammer strikes the operative face to force the medium against the type-wheel. The portion of the light material over the raised character is broken exposing the black material to form the recording. The periphery of the type-wheel is divided into 32 equal character spaces and the wheel is mounted on a **shaft** for rotation to effect character selection. The **shaft** also carries a sixteen toothed stop wheel by which the **shaft** rotation may be arrested. The stop wheel is associated with two solenoids E801 and E802 which are spaced about the wheel so that one is operative to stop the **shaft** in 16 positions and the other to stop the **shaft** in 16 intermediate positions to provide a total of 32 positions. Associated with the **shaft** there are also two 16-way commutators S801 and S802, the wipers of which rotate with the **shaft**, and the apparatus functions to cause a potential to appear from one of the commutators at the appropriate instant to energize one of the solenoids to cause the type-wheel to be arrested at the correct character position. Signals to be recorded, whether originating from the transmitter keyboard, storage unit or radio receiver, cause operation of the five code relays (see above). The contacts of the relays cause earth to appear simultaneously on one or the other terminal of five pairs of terminals 1-6, 2-7, - 5-10 in accordance with the mark-space code combination. Connections extend from the terminals to the segments of the commutators via rectifier networks CR801-CR804. A negative potential is applied to the input of networks CR801 and CR802 from the junction of resistors R805, R806. In accordance with the selective combination of earths applied to the networks from terminals 1-10, the negative potential is allowed to pass through only one of the commutators and at only one of the 16 possible paths through that commutator. By this means, in accordance with the telegraph code combination, an impulse is produced at the correct one of 32 intervals to stop the type wheel and select the corresponding character. The potential from the commutators cuts off either amplifier V801A or V801B and fires an associated thyatron V802 or V804 to energize stop-wheel solenoid E801 or E802. To initiate printer operation a transfer pulse is applied to tube V805 to energize a solenoid E803 which operates a one revolution clutch between the drive motor and a main **shaft** which drives the type-wheel **shaft**. The same pulse is applied to tube V803 which is effective to cut off whichever of thyatrons V802 and V804 is conducting to de-energize the stop wheel solenoid and release the type-wheel from its previously set position. Dependent upon the use to which the recorder is put, the pulse is produced under the control of (1) the keyboard universal bar contact, (2) the magnetic recorder or (3) the telegraph receiver. Supervisory lamps 802 and 803 indicate respectively whether the signals controlling the printer originate from the transmitter keyboard or store, or the radio receiver. The printer mechanism, Figs. 20-38 (not shown), forms the subject of Specification 854,085. Storage unit, Figs. 4 and 8 (not shown). The storage unit comprises a magnetic tape recorder and reproducer utilizing a steel tape of a width sufficient to accommodate five code elements. Recording and reproduc

Classifications:

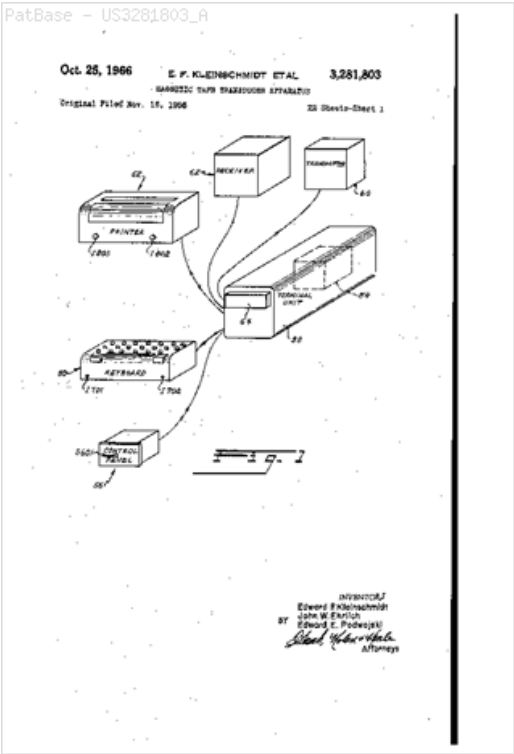
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H04L17/04 H04L17/24

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Family:

Publication number	Publication date	Application number	Application date
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DE1135950 C	19620906	DE1956K030331	19561115
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Priority:

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Probable Assignee: SCM CORP

Assignee(s): (std): KLEINSCHMIDT LAB ; SCM CORP ; SMITH COROUA MARCHANT INC ; SMITH CORONA MARCHANT INC

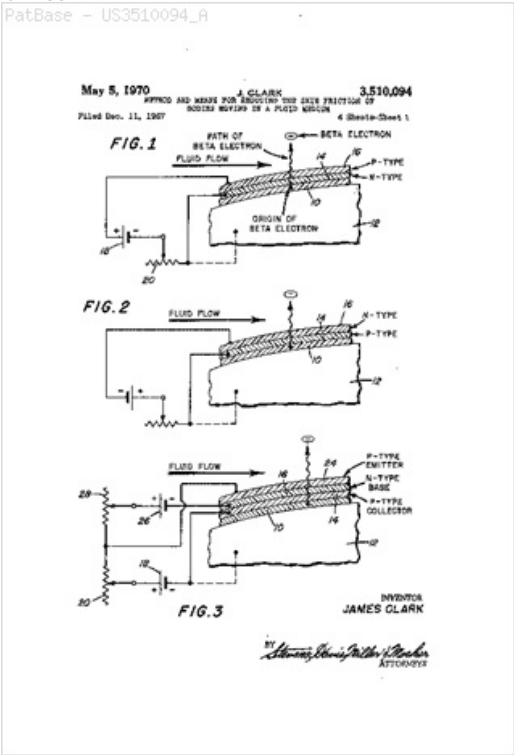
Assignee(s): KLEINSCHMIDT LABORATORIES INC

Inventor(s): (std): EHRLICH JOHN W ; KLEINSCHMIDT EDWARD F ; PODWOIJSKI EDWARD E ; PODWOJSKI EDWARD E

Title: METHOD AND MEANS FOR REDUCING THE SKIN FRICTION OF BODIES MOVING IN A FLUID MEDIUM

Abstract: ABSTRACT OF THE DISCLOSURE
A system, for reducing the skin friction of aerodynamic lg bodies and the like incorporating a layer of either alpha or beta emitting radioactive material upon the outer **surface** of the body, covering the radioactive material with a material having semiconductor properties, and controlling the alpha or beta emissions by varying the electric 20 bias on the semiconductor material. The semiconductor layer may be configured as a diode, triode, F.E.T., and the like. REFERENCE TO OTHER PATENT APPLICATIONS This is a continuation-in-part patent application of my co-pending patent application bearing Ser. No. 457,394, filed May 20, 1965, entitled "Method and Apparatus for **Energy** Transfer." 30 B

Classifications:
International (ipc 8-9): B64C23/00 (Advanced/Invention); B64C23/00 (Core/Invention)
International (ipc 1-7): B63B1/34 B64C23/00 B64C3/36 F15D1/10 F15D1/12
CPC: B64C2230/12 B64C23/005 F05D2270/172 Y02T50/166 Y02T70/121 Y02T70/123
European: B64C23/00A R05D270/172 Y02T50/16D Y02T70/12B Y02T70/12B4
US: 114/67.00R 114/67R 244/1.00N 244/130 244/1N 250/493.1 257/10 257/256 257/565 313/54



Family:

Publication number	Publication date	Application number	Application date
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Priority:

US19670689434 19671211

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Inventor(s): (std): CLARK JAMES

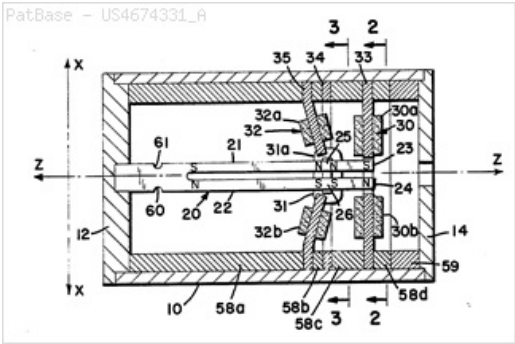
Inventor(s): CLARK JAMES DAYTON OHIO V ST A ; CLARK JAMES DAYTON OHIO VSTA ; JAMES CLARK

Title: ANGULAR RATE SENSOR

Abstract: Angular rate sensors are disclosed. Each sensor includes a forked vibrating element having two tines extending from a base end to a free end. Each of the tines are magnetized to have two regions of opposing magnetic polarity, with the polarity of corresponding regions between the different tines being opposite. In a first embodiment, the tines are driven in complementary resonant vibration by a pair of drive coils positioned about the tines near the free ends thereof. In a second embodiment, the drive coils are located about the tines at the junction of the regions of magnetization mid-element. In the first embodiment, sense motions are detected by a pair of sense coils positioned about mid-element near the junction of the first and second regions of magnetization. In the second embodiment, sense motions are detected by capacitive sensing, which consists of two parallel plate capacitors formed of the tines and additional plates, which are connected for differential sensing. Each of the tines is configured to have a first natural frequency of resonance in the drive plane and a second natural frequency of resonance for sense motions, with the second frequency being greater than the first, in order to extend the usable bandwidth of operation of the sensor.

Classifications:

International (IPC 8-9): G01C19/56 G01C19/5607
G01P9/04 (Advanced/Invention);
G01C19/56 G01P9/04 (Core/Invention)
International (IPC 1-7): G01C19/56 G01P9/04
CPC: G01C19/5607
European: G01C19/5607
US: 73/504.16 73/505



Family:

Publication number	Publication date	Application number	Application date
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Priority:

US19840635116 19840727 EP19850850248 19850726 EP19850850248 19850726
US19860926878 19861105

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Inventor(s): (std): WATSON WILLIAM S ; UIRIAMU ESU WATSON

Agent(s): SELIGSOHN GABRIELI AND CO

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

Title: Method of extending the utility of an integral driving-sensing pot-core half eddy current probe

Abstract: An axial direction groove is formed in a high permeability toroidal core taking the form of a pot core half with a mounting **hole**, a high cross-section ratio copper casing being tightly fit around core circumference, having poly-phase excitation windings shuttled through the mounting **hole** to encompass both the copper casing and the pot-core, forming an integral driving-sensing eddy current probe. A naked pot-core is wound as an integral driving-sensing probe. Poly-phase excitation of the probe is mesh-connected as a gramme-ring.

Classifications:

International (IPC 8-9): B21C51/00 G01B7/00 G01B7/06 G01B7/30 G01B7/31 G01D5/20 G01N27/72 G01N27/80 G01N27/90 G01R33/00 G01R33/12 G01V3/10 G06F1/02 H02K24/00 H03B28/00

H03K17/97 (Advanced/Invention);

G05G9/047 (Advanced/Non-invention);

G01B7/00 G01N27/72 G01N27/90 G01R33/00 G01R33/12 G06F1/02

H03B28/00 (Core/Invention);

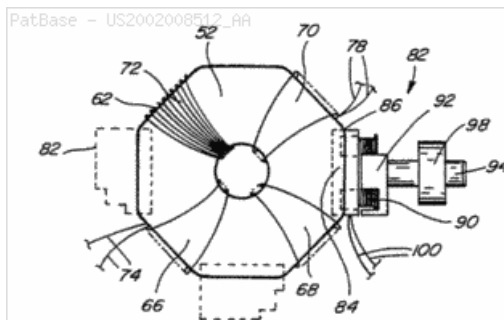
G05G9/00 (Core/Non-invention)

International (IPC 1-7): B07C5/344 B21C51/00 G01B7/00 G01B7/06 G01B7/14 G01B7/30 G01B7/31 G01N27/72 G01N27/80 G01N27/82 G01N27/90 G01R33/00 G01R33/12 G05D1/08 G05G9/00 G06F1/02 G09G5/00 H01F15/02 H02K3/04 H03B28/00

CPC: G01N27/9013 G01V3/105 G01N27/82 G01N27/90 G01B7/00 G01R33/00 G06F1/02 H03B28/00 G01D5/208 G01B7/30 B82Y15/00 G01D5/2013 G05G2009/04755 H02K24/00 H03K17/97 H03K2017/9706 Y10T74/20201

European: B82Y15/00 G01B7/30 G01D5/20B1 G01N27/82 G01N27/90 G01N27/90A1 G01R33/12 G01V3/10C2 H02K24/00 H03K17/97 S05G9/047E6 T03K17/97I

US: 209/567 244/234 310/168 318/661 324/207.17 324/207.22 324/207.25 324/207.26 324/225 324/228 324/229 324/232 324/233 324/235 324/239 324/240 324/240P 324/241 324/242 324/243 327/106 336/45 345/161 463/36 74/471 74/471XY 901/46



Family:

Publication number	Publication date	Application number	Application date
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Priority:

US19920842244 19920227	US19930108880 19930813	US19930142933 19931029
US19930170058 19931220	US19940187072 19940127	US19940217738 19940325
US19940267511 19940629	US19950388825 19950215	US19950416971 19950405
US19960599775 19960212	US19960685854 19960724	US19970832100 19970403
US19980023516 19980213	US19980138750 19980824	US19990419140 19991015
US19990467599 19991220	US20010873838 20010604	US20030349526 20030122

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Assignee(s): LOGUE DELMAR L

Inventor(s): (std): LOGUE DELMAR L ; LOGUE STEPHEN J ; LOGUE STEPHEN JOHN ; LOGUE DELMAR LEON

Title: METHOD AND DEVICE FOR CONTROLLING THE MAGNETIC FLUX IN A ROTATING HIGH VOLTAGE ELECTRIC ALTERNATING CURRENT MACHINE

Abstract: A rotating electric machine for direct connection to high-voltage networks, in which the magnetic circuit adapted for high voltage comprises a rotor, stator and main and auxiliary windings in operative relation. At least one of the windings is a conductor surrounded by a magnetically permeable, field confining insulation system.

Classifications:

International (IPC 8-9): H01F27/34 H02K19/00 H02K19/16
H02K19/34 H02K19/36 H02K3/04 H02K3/16 H02K3/40 H02P11/00
H02P9/10 (Advanced/Invention);
H02K3/40 (Advanced/Non-invention);
H02K19/16 H02P9/10 (Core/Invention);
H02K3/32 (Core/Non-invention)

International (IPC 1-7): H01B7/00 H02J3/16 H02K19/16 H02K19/34
H02K19/36 H02K3/04 H02K3/16 H02K3/30 H02K3/40 H02P9/10

CPC: Y10S174/15 Y10S174/16 H02K19/365 H02K3/40 H02K19/34
H02K19/36 H02K2203/15 H02P9/105

European: H02K19/34 H02K19/36 H02K19/36B H02P9/10D

T02K203/15 T02K3/40

US: 174/DIG.15 174/DIG.16 310/180 318/700

PatBase - US6525504_BA

U.S. Patent Feb. 25, 2003 Sheet 1 of 8 US 6,525,504 B1

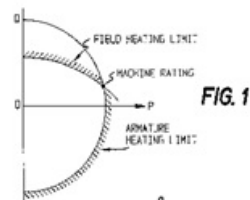


FIG. 2

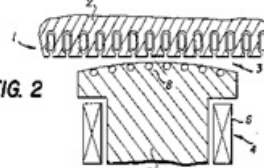
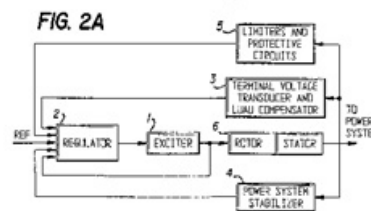


FIG. 2A



Family:

Publication number	Publication date	Application number	Application date
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BRPI9815420 A	20010717	BR1998PI15420	19980929
CL1998002874 A1	19990903	CL19980002874	19981126
CO4810360 A1	19990630	CO19980069982	19981126
EP1042853 A2	20001011	EP19980946638	19980929
HU0101186 AB	20010828	HU20010001186	19980929
HU0101186 AC	20020328	HU20010001186	19980929
PE442000 A1	20000415	PE19980001154	19981126
TH38527 A	20000531	TH19981004560	19981126
US6525504 BA	20030225	US20000511366	20000223
WO9929015 A2	19990610	WO1998IB01624	19980929
WO9929015 A3	19990910	WO1998IB01624	19980929
ZA9810820 A	19990531	ZA19980010820	19981126

Priority:

US19970980214 19971128

WO1998IB01624 19980929

WO1998SE01733 19980929

US20000511366 20000223

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Inventor(s): (std): BERGGREN BERTIL ; BERTIL BERGGREN ; NYGREN ANDERS JAN ; NYGREN JAN ANDERS ; NYGREN JAN ANDRES

Inventor(s): JAN ANDERS NYGREN ; JAN ANDERS NYGREN BERTIL BERGGREN

Agent(s): PORZIO; ERNESTO CAVELIER

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