L 41654-65

ACCESSION NR: AP4013379 2

orientator (leading to small oscillations about the equilibrium position) in which only basic instrumental errors are considered (other errors being reducible to these). With regard to these small "error" oscillations, the equations derived have variable coefficients and may involve random forcing functions. Only a few cases are amenable to exact solution, e.g., constant velocity at constant distance from the earth's center, in a plane through the earth's center. He gives some suggestions for an approximate analysis when great accuracy is not necessary. "The author is grateful to A. Yu. Ishlinskiy and V. N. Koshlyakov for their discussions of this work." Orig. art. has: 58 formulas and 1 diagram.

ASSOCIATION: none

SUBMITTED: 17Oct63 ENCL: 00 SUB CODE: ME, MA

NO REF SOV: 010 OTHER: 000

Card 2/2 CC

L 1413-65 EEO-2/EWT(d)/EEC-4/ Pn-4/Po-4/Pq-4/Pg-4/Pk-4/P1-4 IJP(c) BC
ACCESSION NR: AP5010650 UR/0040/65/029/002/0249/0260

AUTHOR: Andreyev, V. D. (Moscow)

TITLE: Integration of error equations for an inertial navigation system for Keplerian motion of an object

SOURCE: Prikladnaya matematika i mekhanika, v. 29, no. 2, 1965, 249-260

TOPIC TAGS: differential equation

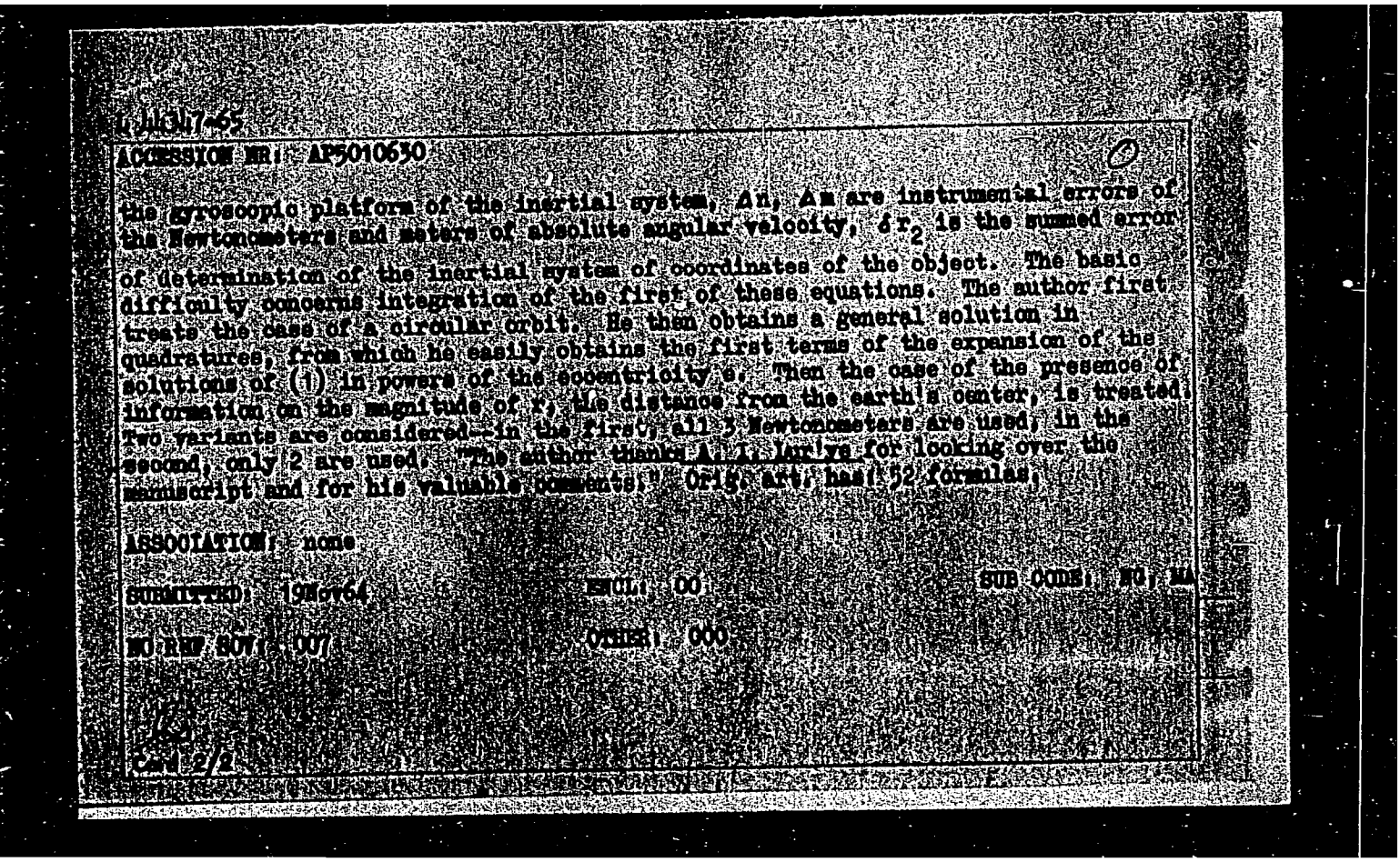
ABSTRACT: The error equations for an inertial navigation system consisting of Newtonometers and gyroscopic measurers of absolute angular velocity have the form

$$\frac{d^2\delta r}{dt^2} + \frac{\mu\delta r}{r^3} - \frac{\mu r\,3r\cdot\delta r}{r^5} = \Delta n - 2\Delta m \times \frac{dr}{dt} + r \times \frac{d\Delta m}{dt} \qquad (1)$$

$$\frac{d\theta_1}{dt} = \Delta m, \quad \delta r_1 = \theta_1 \times r, \quad \delta r_2 = \delta r + \delta r_1$$

(These equations arise from instrumental errors, as well as imperfectly known initial conditions.) Here r is the radius-vector of the point O of the object at which we find the sensitive masses of the Newtonometers of the inertial system, having origin at the center of the earth O_1, δr is its variation, μ is the product of the gravitational constant and the earth's mass, θ_1 is the orientation error of

Card 1/2



L 44347-65

ACCESSION NR: AP5010630

the gyroscopic platform of the inertial system, Δn, Δm are instrumental errors of the Newtonometers and meters of absolute angular velocity, δr_2 is the summed error of determination of the inertial system of coordinates of the object. The basic difficulty concerns integration of the first of these equations. The author first treats the case of a circular orbit. He then obtains a general solution in quadratures, from which he easily obtains the first terms of the expansion of the solutions of (1) in powers of the eccentricity e. Then the case of the presence of information on the magnitude of r, the distance from the earth's center, is treated; two variants are considered--in the first, all 3 Newtonometers are used; in the second, only 2 are used. The author thanks A. I. Lur'ye for looking over the manuscript and for his valuable comments." Orig. art. has 152 formulas.

ASSOCIATION: none

SUBMITTED: 19Nov64 ENCL: 00 SUB CODE: MC, MA

NO REF SOV: 007 OTHER: 000

Card 2/2

L 2758-66 EWT(d)/EWT(1)/FS(v)-3/EEC(k)-2/EWA(d)/EED-2/EWA(c) GW/BC
ACCESSION NR: AP5021714 UR/0373/65/000/004/0108/0116

AUTHOR: Andreyev, V. D. (Moscow)

TITLE: Error equations of an inertial navigation system, determining the arbitrary curvilinear coordinates of a moving object

SOURCE: AN SSSR. Izvestiya. Mekhanika, no. 4, 1965, 108-116

TOPIC TAGS: inertial navigation, inertial guidance, error analysis, tensor calculus, curvilinear coordinate

ABSTRACT: A set of equations is derived to describe the perturbed motion of an inertial system in curvilinear coordinates. The initial condition of the motion is assumed to be incorrect, and several errors exist in the navigational instruments. Three sets of error equations are derived which describe the motion and orientation of the object in space. These are given by

$$\delta x^k{}'' + \frac{\mu}{r^3}\delta x^k + 2(\Gamma^k_{m\sigma}\dot{x}^m + \Gamma^k_{0\sigma})\delta\dot{x}^\sigma + \left[\dot{x}^m\dot{x}^n\left(\frac{\partial}{\partial x^\sigma}\Gamma^k_{mn} + \Gamma^s_{mn}\Gamma^k_{s\sigma}\right) + \right.$$

$$+ 2\dot{x}^m\left(\frac{\partial}{\partial x^\sigma}\Gamma^k_{0m} + \Gamma^s_{0m}\Gamma^k_{s\sigma}\right) + (\dot{x}^0{}' + \Gamma^s_{00})\Gamma^k_{s\sigma} + \frac{\partial}{\partial x^\sigma}\Gamma^k_{00} -$$

$$\left. - \frac{3\mu}{4r^5}a^{kn}\frac{\partial r^2}{\partial x^n}\frac{\partial r^2}{\partial x^\sigma} - \frac{\mu}{2r^3}\frac{\partial r^2}{\partial x^n}a^{mn}\Gamma^k_{m\sigma}\right]\delta x^\sigma = \Delta n^k - \varepsilon^{ijk}\left[2\Delta m^p a_{sp}a_{il}(\dot{x}^l + a^l_0) + \right.$$

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ACCESSION NR: AP5021714

$$+ a_{ns}(\Delta m^n \cdot + \Delta m^l(\Gamma^n_{lm}x^m \cdot + \Gamma^n_{0l}))\frac{1}{2}\frac{\partial r^s}{\partial x^l}\Big]$$

$$\theta^k \cdot + \theta^l(\Gamma^k_{li}x^i \cdot + \Gamma^k_{0l}) = \Delta m^k$$

$$\delta x_1{}^k = \varepsilon^{sik}a_{ns}\theta^n\frac{1}{2}\frac{\partial r^s}{\partial x^l}, \qquad \delta x_2{}^k = \delta x^k + \delta x_1{}^k$$

In the first two of the above equations the contravariant components Δn^s and Δm^s of the vectors $\Delta\vec{n}$ and $\Delta\vec{m}$ appear as instrumental error sensitivity elements. These equations are simplified in the case when the coordinates x^s are orthogonal, and consequently only the nonzero terms are the diagonal terms. To appreciate the usefulness of the above results, a special case is selected. which corresponds to geocentric coordinates

$$x^1 = r, \quad x^2 = \lambda, \quad x^3 = \varphi;$$

Orig. art. has: 57 equations.

ASSOCIATION: none

SUBMITTED: 01Oct64 ENCL: 00 SUB CODE: ME, MA

NO REF SOV: 004 OTHER: 000

Card 2/2 mlr

IVANOV, K.I.; ANDREYEV, V.D.; MANZIYENKO, G.G.; USHKOV, N.N.

Investigating the efficiency of using pistons of various design for rock breaking. Gor. zhur. no. 12:45-47 D '65. (MIRA 18:12)

ANDRE[illegible], V.S.

Uranium industry of the capitalist countries in 1964. Atom. energ. 19 no.2:219-224 Ag '65. (MIRA 18:9)

L 17854-66 EEC(k)-2/EWT(d)/EWT(l)/EWA(d)/FSS-2 GW/BC

ACC NR: AP6004068 SOURCE CODE: UR/0040/65/029/005/0835/0845

AUTHOR: Andreyev, V. D. (Moscow)

69
B

ORG: none

TITLE: On equations of unperturbed work of an inertial system defining curvilinear coordinates

SOURCE: Prikladnaya matematika i mekhanika, v. 29, no. 5, 1965, 835-845

TOPIC TAGS: coordinate system, space accelerometer, space mechanics, space navigation, space tracking, inertial guidance system, gyrostabilized platform

ABSTRACT: An inertial system autonomously defining the coordinates of an object and the parameters characterizing its orientation in space is developed. A right-hand orthogonal system of coordinates $O_1\xi^1\xi^2\xi^3$ is used; the origin of the system is the center of the earth, and the orientation of axes is invariant with respect to directions from the center of the earth to outlying stars. The position of a moving object is defined in this coordinate system by coordinates x^1, x^2, x^3, such that

$$\xi^s = \xi^s(x^1, x^2, x^3, t), \qquad J = \frac{D(\xi^1, \xi^2, \xi^3)}{D(x^1, x^2, x^3)} \neq 0 .$$

The basis of the inertial navigation system is a gyrostabilized platform whose axis

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L 17854-66
ACC NR: AP6004068

is identified as that corresponding to the directions ξ^s. On the platform are set three newtonometers with defined unit vectors of direction. The inertial system is derived and demonstrated for several special cases of the general case of defining arbitrary nonstationary oblique-angled curvilinear coordinates. Equations of undisturbed functioning are inferred for such an inertial system. The working equations derived are compared with those for a Cartesian system developed by the author (Ob obshchikh uravneniyakh inertsial'noy navigatsii. PMM, 1964, t. 29, vyp. 3). Two comparative examples are worked out. Orig. art. has: 71 equations.

SUB CODE: 22,17/ SUBM DATE: 04Sep64/ ORIG REF: 004

Card 2/2 nst

L 9626-66 EWT(d)/FSS-2/EEC(k)-2/EWA(o) BC
ACC NR: AP6000550 SOURCE CODE: UR/0040/65/029/006/1108/1111

38
B

AUTHOR: Andreyev, V. D. (Moscow)

ORG: none

TITLE: On the theory of a pendulum-gyroscope system, satisfying the M. Shuler conditions

SOURCE: Prikladnaya matematika i mekhanika, v. 29, no. 6, 1965, 1108-1111

TOPIC TAGS: gyroscope system, pendulum mechanics, perturbation theory, earth gravity

ABSTRACT: The perturbed motions of pendulum-gyroscope systems are analyzed in a non-spherical terrestrial gravity field. To this end, an arbitrary mechanical system is considered, suspended on a moving object in the form of a three-power suspension such that the center of mass of the system does not coincide with the center of suspension. The distance between the center of mass C and the suspension O is denoted by "a" satisfying the condition a = kr, where r is the distance between the point O and the earth's center. The equation of motion of the system is given by

$$K^{\cdot} = a \times (F - mr^{\cdot}) + M^{\circ},$$

where K is the sum of kinetic moments of the system and M is the sum of the moments relative to the suspension center. The perturbation motion of the system is analyzed for the conditions $M_{x_0}^{\circ} = -aF_{y_0}$, $M_{y_0}^{\circ} = aF_{x_0}$, $M_{z_0}^{\circ} = 0$,

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L 9626-66

ACC NR: AP6000550

$$K_{x_0} + mav_{y_0} = 0, \quad K_{y_0} - mav_{x_0} = 0, \quad K_{z_0} = 0,$$

leading to the vector equation

$$kmr \times (\delta\ddot{\mathbf{r}} + \mu r^{-3}\delta\mathbf{r}) = -\Delta\dot{K} + \Delta M + m\Delta a z_0 \times \ddot{\mathbf{r}}.$$

When written in scalar form, the above perturbation equation is shown to lead to the equations of small pendulum oscillations of M. Shuler (V. D. Andreyev. Ob odnom sluchaye malykh kolebaniy fizicheskogo mayatnika s podvizhnoy tochkoy opory. PMM, 1958, t. 22, vyp. 6). Orig. art. has: 24 equations.

SUB CODE: 20/ SUBM DATE: 16Dec64/ ORIG REF: 006

Card 2/2

L 23427-66 EWT(1)/FCC GW

ACC NR: AT6012598 SOURCE CODE: UR/3201/65/000/002/0114/0122

29
23
B+1

AUTHOR: Klinov, F. Ya.; Andreyev, V. D.; Poltavskiy, V. V.; Lobova, L. Ye.

ORG: Institute of Applied Geophysics (Institut prikladnoy geofiziki)

TITLE: Measurement of two wind-direction components at the high meteorological tower

SOURCE: Leningrad. Institut prikladnoy geofiziki. Trudy, no. 2, 1965. Pogranichnyy sloy atmosfery (Boundary layer of the atmosphere), 114-122

TOPIC TAGS: micrometeorology, meteorological instrument, meteorological tower, wind measuring set, bivane

ABSTRACT: A wind-direction measuring set is used to measure the horizontal and vertical components of the direction of the wind-velocity vector. The set consists of transducers whose sensing element is a special "bivane," a recorder, a digital printing device, and a power supply; it is installed on the high meteorological tower of the Institute of Applied Geophysics. The bivane consists of a three-arm system balanced on a column, the arms being set 120° apart. A ring stabilizer is mounted on the end of one arm, 320 mm from the system's center of rotation. It was established experimentally that the flow of air is disturbed by the transducer casing to a distance not more than 200—250 mm from the casing; thus the stabilizer is within the undisturbed flow, which ensures accurate tracking of wind directions (within the limits of system errors). The instrument and the bivane are described. At

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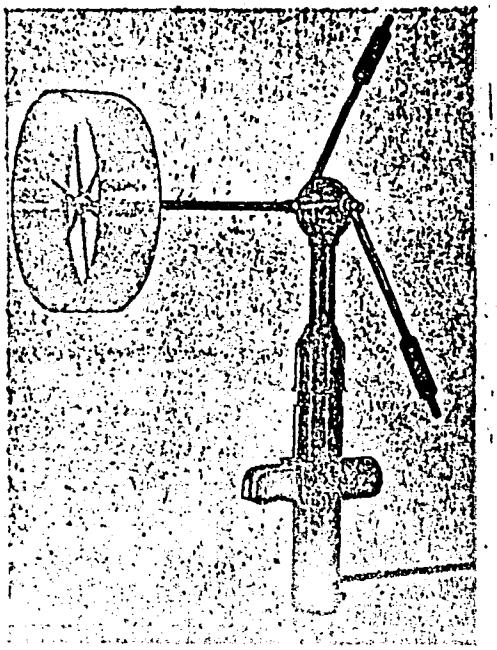
UDC: 551.506+508+508.2+508.5+510

present, the transducers are installed on 5 levels of the tower; the threshold sensitivity (both vertical and horizontal) of the transducers is about 0.6 m/sec. If the initial mismatch between the bivane and the wind direction is 0° or 180°, the threshold value is higher--1.0--1.3 m/sec. The principle measurement errors are: 1) error in the horizontal orientation of transducers relative to the mire on the working levels--1.5--2.0°; error due to mismatch of the servosystem--1.0--3.0° (transducer selsyn, 0.5--1.0° and sensor selsyn, 0.75--1.5°); 3) error in readings from the diagram tape in the recording system--2.5°. Thus, the total error in measuring wind directions is about 5--7° (see Fig. 1). Some variations in profiles of the wind direction in the lower 300 m of the atmosphere are shown. These profiles were constructed for 30-min intervals, which permitted stable forms of curves that represent "sets" of possible forms of wind-direction profiles in the layer (see Table 1). One group of profiles shows a shift to the right with height in the wind direction throughout the entire layer (I,II), and to the left (XVI--XVIII); in a number of cases, the wind direction was constant throughout most of the entire layer (IV); there were layered conbinations of right and left shifts in the wind along with constant directions (X, XII). The recording bivane was designed and tested under the supervision of G. I. Tsitsurin. N. P. Tofenchuk, V. S. Storozhka, V. G. Stefanov, and G. S. Vasil'yev participated in developing the wind-direction measuring set installed on the high tower and procedures for two-dimensional wind

L 23427-66
ACC NR: AT6012598



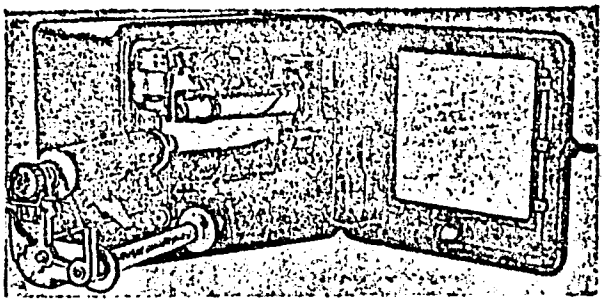


Fig. 1. Wind-direction measuring set and the recording device

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L 23427-66

ACC NR: AT6012598

Table 1. Some of the variations in wind-direction profiles in the lower 300 m layer of the atmosphere

Cases	a	b	c	d	e
A_H	50	15	60	70—90	90—180
A_D	10	5	15	40—50	90—150
A_H/A_D	5	3	4	2	1

measurements in the lower 300 m of the air. Orig. art. Has: 6 figures and 3 tables. [EO]

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 001/ ATD PRESS: 4233

Card 4/4

L 27509-66 EWT(d)/EEC(k)-2/FSS-2 BC

ACC NR: AP6011126 SOURCE CODE: UR/0424/66/000/001/0014/0019

AUTHORS: Andreyev, V. D. (Moscow); Devyanin, Ye. A. (Moscow); Dem'yanovskiy, A. P. (Moscow)

ORG: none

TITLE: The theory of inertial systems containing no gyroscopic sensing elements

SOURCE: Inzhenernyy zhurnal. Mekhanika tverdogo tela, no. 1, 1966, 14-19

TOPIC TAGS: inertial navigation equipment, ordinary differential equation, error analysis, gravitational potential, Laplace equation

ABSTRACT: The possibility is investigated of using an inertial guidance system (Newtonometers) without the presence of gyroscopic sensing elements. For an object moving near the terrestrial surface, it is assumed that there exists a trihedron attached to a platform, denoted by $Ox_1x_2x_3$. To this trihedron are attached four triple-Newtonometers, the sensitive mass of one of which is at point O, and the others on the axes x_1, x_2, x_3. It is then shown that for a gravity potential satisfying the Laplace equation the complete information obtained from these Newtonometers (without gyroscopic sensitive elements) can be expressed by the group

$$n_1^0 = v_1^* + \omega_2 v_3 - \omega_3 v_2 - \frac{\partial^2 V_0}{\partial x_1^2}$$

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L 27570-66
ACC NR: AP6018484

The enhanced protection resulting from the use of the two agents is due not only to the difference in mechanism of action of the agents but to the fact that they provide differentiated protection of various systems. AET and AETP protected bone marrow and intestine equally, whereas 5-MOT protected only bone marrow. The synthesis of the compounds was carried out in the laboratories of Academician I. L. Knunyants (AETP), Professor N.N. Suvorov (5-MOT) and Candidate of Chemical Sciences V. M. Fedoseyev (AET). The author thanks them for making possible the preparations. Orig. art. has: 2 figures and 2 tables. [JPRS]

SUB CODE: 06 / SUBM DATE: 25Sep64 / ORIG REF: 017 / OTH REF: 009

Card 2/2

L 33474-66 EWT(1) GW

ACC NR: AP6012561 SOURCE CODE: UR/0040/66/030/002/0410/0413

AUTHOR: Andreyev, V. D. (Moscow)

ORG: none

TITLE: Solution of the Stokes problem for a level surface represented as a spheroid

SOURCE: Prikladnaya matematika i mekhanika, v. 30, no. 2, 1966, 410-413

TOPIC TAGS: convergent series, earth gravity, gravitation field, coordinate system, earth planet, earth rotation

ABSTRACT: Explicit expressions for prbjections of the strength of the regularized gravity field of the earth outside of and on its surface are obtained in the form of special, rapidly convergent series. A right-hand orthogonal coordinate system O_1xyz with its origin at the center of the earth is introduced. The following expressions (obtained by solution of the Stokes problem for a level surface in the form of a Clairaut ellipsoid) for these projections at an external point O relative to the ellipsoid are introduced:

$$F_x = -P_x + C\frac{\partial K}{\partial x}, \quad F_y = -P_y + C\frac{\partial K}{\partial y}, \quad F_z = -Q_z + C\frac{\partial K}{\partial z}$$

Determination of the position of point O in the coordinate system leads to the

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L 27509-66 EWT(d)/EEC(k)-2/FSS-2 BC

ACC NR: AP6011126 SOURCE CODE: UR/0424/66/000/001/0014/0019

AUTHORS: Andreyev, V. D. (Moscow); Devyanin, Ye. A. (Moscow); Dem'yanovskiy, A. P. (Moscow)

ORG: none

TITLE: The theory of inertial systems containing no gyroscopic sensing elements

SOURCE: Inzhenernyy zhurnal. Mekhanika tverdogo tela, no. 1, 1966, 14-19

TOPIC TAGS: inertial navigation equipment, ordinary differential equation, error analysis, gravitational potential, Laplace equation

ABSTRACT: The possibility is investigated of using an inertial guidance system (Newtonometers) without the presence of gyroscopic sensing elements. For an object moving near the terrestrial surface, it is assumed that there exists a trihedron attached to a platform, denoted by $Ox_1x_2x_3$. To this trihedron are attached four triple-Newtonometers, the sensitive mass of one of which is at point O, and the others on the axes x_1, x_2, x_3. It is then shown that for a gravity potential satisfying the Laplace equation the complete information obtained from these Newtonometers (without gyroscopic sensitive elements) can be expressed by the group

$$\left[n_1^0 = \dot{v}_1 + \omega_2 v_3 - \omega_3 v_2 - \frac{\partial V_0}{\partial x_1} \right]$$

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L 27509-66

ACC NR: AP6011126

$$\omega_1^2 = \frac{1}{2I}(n_1^{01} - n_2^{02} - n_3^{03}) + \frac{\partial^2 V_0}{\partial x_1^2}$$

$$\omega_1\omega_2 = \frac{1}{2I}(n_3^{01} + n_1^{02}) + \frac{\partial^2 V_0}{\partial x_1 \partial x_2}$$

$$\omega_1' = \frac{1}{2I}(n_3^{02} - n_2^{03}) .$$

These lead to two groups of equations for the unperturbed motion of the inertial system

$$v_1 = \int_0^t \left(n_1^0 - \omega_2 v_3 + \omega_3 v_2 + \frac{\partial V_0}{\partial x_1}\right) dt + v_1(0)$$

$$x_1 = \int_0^t (v_1 - \omega_3 x_2 + \omega_2 x_3)\, dt + x(0)$$

$$\omega_1 = \frac{1}{2I}\int_0^t (n_3^{02} - n_2^{03})\, dt + \omega_1(0)$$

and

$$\beta_{il} = \int_0^t (\beta_{i2}\omega_3 - \beta_{i3}\omega_2)\, dt + \beta_{il}(0) \qquad (123) \qquad (i = 1, 2, 3) .$$

Error equations similar to those of the gyroscopic elements are obtained for the above inertial system. It is shown that for a spherical gravitational field the above expressions for γ_i and ω_i can be simplified. Orig. art. has: 33 equations.

SUB CODE: 17, 01, 20/ SUBM DATE: 06Apr65/ ORIG REF: 003/ OTH REF: 001

Card 2/2 BLG

L 06205-67 EWT(d)
ACC NR: AP6024186 SOURCE CODE: UR/0424/66/000/002/0003/0010

AUTHORS: Andreyev, V. D. (Moscow); Novozhilov, I. V. (Moscow)

46
45
B

ORG: none

TITLE: On controlling the motion of an object by newtonometer readings

SOURCE: Inzhenernyy zhurnal. Mekhanika tverdogo tela, no. 2, 1966, 3-10

TOPIC TAGS: accelerometer, newtonometer, trajectory determination, navigation, inertial navigation

ABSTRACT: A study is made involving the instantaneous control of the center of mass motion for a solid object by means of newtonometer readings, without determination of the coordinates of the object. This study is performed by analyzing the equations of motion of an object along a programmed trajectory. A right-handed orthogonal coordinate system is introduced in which the position of the center of mass of the object is referenced with respect to an origin at the center of the earth. Definitions are made for several variables describing the geometric system and also the characteristics of the newtonometer. The discussion proceeds to the consideration of how the signal of the newtonometer is converted into directional control of the object. This leads to the stating of a system of equations relating the motion of the center of mass of the object to its programmed position. The system is transformed into a system in

Card 1/2

ANDREYEV, V.F.

Expanding the output of economically shaped rolled products, pipe, and hardware. Stal' 24 no.7:636-637 Jl '64. (MIRA 18:1)

SOV/133-58-6-29/33

AUTHOR: Andreyev, V.F., Candidate of Economic Sciences

TITLE: On the Economic Effect of the Application of Oxygen in the Iron and Steel Industry (Ob ekonomicheskoy effektivnosti primeneniya kisloroda v chernoy metallurgii)

PERIODICAL: Stal', 1958, Nr 6, pp 561 - 568 (USSR).

ABSTRACT: Economics of the application of oxygen in open-hearth furnaces, converters, electric furnaces and blast furnaces is discussed. It is concluded that the main economic advantage of the application of technically pure oxygen for smelting iron and steel is an increase in the output of blast furnaces and steel-making furnaces with a lower expenditure for this increase of means of production and time than by erecting an additional productive capacity. The possibilities of decreasing costs of production depend on the cost of oxygen and on the actual conditions of its utilisation. There are 13 references, 8 of which are Soviet, 3 English and 2 German.

1. Furnaces--Operation 2. Oxygen--Economic aspects 3. Steel industry --USSR 4. Iron industry--USSR

Card 1/1

ANDREYEV, V.F.

Expanding the continuous casting of steel. Stal' 23 no.2:121-126 F '63. (MIRA 16:2)

(Continuous casting)

KUCHERSKIY, L.V.; GETSEN, E.K.; SKRYABIN, V.A.; KONONENKO, N.I.; KOLESOV, I.M.; ANDREYEV, V.F.

Industrial safety in carrying out and cementing development workings during the occurrence of oil and gas. Nauch. trudy Perm NIUI no. 4:103-126 '62. (MIRA 17:6)

ANDREYEV, V.F.

Intensifying the work of open-hearth furnaces. Stal' 24 no.6: 510-513 Je '64. (MIRA 17:9)

ANDREYEV, Viktor Fedorovich, kand. ekon. nauk; BANNYY, Nikolay Pavlovich, dots., kand. ekon. nauk; GORELIK, Iosif Grigor'yevich, dots., kand. ekon. nauk [deceased]; KATYSHEV, Viktor Leonidovich; OBLOMSKIY, Yakov Antonovich, dots., kand. ekon. nauk; PEKELIS, Isay Borisovich; PINEGIN, Ivan Ivanovich; PRIYMAK, Ivan Andreyevich, prof., doktor tekhn. nauk [deceased]; ROYTBURD, Lazar' Nisonovich, prof., doktor ekon. nauk; ROMANOVICH, Nikolay Dmitriyevich; BORDIN, M.M., retsenzent; BRYUKHANENKO, B.A., dots., kand. ekon. nauk, retsenzent; KHUTORSKAYA, Ye.S., red.izd-va; KARASEV, A.I., tekhn. red.

[Economics of ferrous metallurgy in the U.S.S.R.] Ekonomika chernoi metallurgii SSSR. [By] V.F.Andreev i dr. Pod red. L.N.Roitburda i N.P.Bannogo. Moskva, Metallurgizdat, 1963. 384 p. (MIRA 16:5)
(Iron industry) (Steel industry)

ANDREYEV, V. G., prof.

Mycoses in leprosy. Vest. derm. i ven. no.4:15-20 '62.
(MIRA 15:4)

1. Iz kliniki kozhnykh i venericheskikh zabolevaniy (zav. - zasluzhennyy deyatel' nauki prof. I. N. Perevodchikov[deceased]) Astrakhanskogo meditsinskogo instituta (dir. - dotsent I. N. Alamdarov) i Vsesoyuznogo nauchno-issledovatel'skogo instituta po izucheniyu lepry (dir. - kandidat meditsinskikh nauk V. F. Shubin)

(MYCOSIS) (LEPROSY)

ANDREYEV, V.G., kandidat meditsinskikh nauk; FAYZULLINA, G.A., vrach; ZAKHAROVA, R.I., vrach.

Causative agents of fungous disease among the inhabitants of Astrakhan' Province. Vest.ven. i derm. no.3:58 My-Je '53. (MLRA 6:7)

1. Astrakhanskiy meditsinskiy institut.
(Astrakhan' Province--Medical mycology)

ANDREYEV, V. G., Doc of Med Sd -- (diss) "Micosis in Persons Afflicted with Leprosy," Leningrad, 1959, 17 pp (1st Leningrad Medical Institute im Pavlov) (KL, 5-60, 129)

1. ANDREYEV, V.G.
2. USSR (600)
4. Fishing
7. Mechanization of catching sprat by electric light, Ryb.khoz. 29 no. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

ANDREYEV, V.G., inzhener.

Automatization of machining and assembling operations abroad.
Vest.mash. 36 no.11:80-81, 83 N '56. (MLRA 10:1)
(Automation)

Andreyev, V. G.

ANDREYEV, V.G., inzh.

Foreign techniques used in machining metals. Vest.mash. 37 no.12:83-85 D '57. (MIRA 10:12)
(Metal cutting)

BERTINOV, A.I., prof.; ANDREYEV, V.G., kand.tekhn.nauk

Determining parameters of magnetoelectric generators with an asterisk-shaped rotor. Trudy MAI no.133:5-34 '61. (MIRA 14:5)
(Electric generators)

BERTINOV, A.I., prof.; ANDREYEV, V.G., kand.tekhn.nauk

Effect of aluminum lining of rotors of magnetoelectric generators on the degree of their use. Trudy MAI no.133:35-40 '61.
(MIRA 14:5)

(Electric generators)

BERTINOV, A.I., prof.; ANDREYEV, V.G., kand.tekhn.nauk

Effect of steady and transient processes on the shape of curves of the field and voltage of magnetoelectric generators. Trudy MAI no.133:41-54 '61. (MIRA 14:5)
(Electric generators)

ANDREYEV, V.G.; BARSUKOV, I.A.; ZARUBIN, B.T.; KNIZINIKOV, YU.N.; KUZMINA, N.I.; MISHENKO, A.I.; NEVYZHSKIY, I.KH.; OSOVETS, S.N.; PETROV, YU.F.; POLYAKOV, B.I.; POPOV, I.A.; TRUBETSKOY, V.F.; YAKOLEV, I.N.; KHODATAYEV, K.V.

"System of plasma containment by a traveling wave firld."

Report presented at the Conference on Plasma Physics and Controlled Nuclear Fusion Research(IAEA)
Salzburg, Austria 4-9 Sep 1961.

ANDREYEV, Inst. of Radio Engineering Electronics
BARSUKOV, " " " " " " "
ZARUBIN, " " " " " " " "

ANDREYEV, V.G., prof.

Pathogens of dermatomycoses in Kursk Province. Vest. derm. i ven. 38 no.4:85-86 Ap '64. (MIRA 18:4)

1. Klinika kozhnykh i venericheskikh bolezney Kurskogo meditsinskogo instituta.

L 11263-66
ACC NR: AP6000430 SOURCE CODE: UR/0292/65/000/010/0008/0011

AUTHOR: Bertinov, A. I. (Doctor of technical sciences; Professor); Andreyev, V. G. (Candidate of technical sciences); Golubenko, Ya. A. (Engineer)

ORG: none

TITLE: Magnetic-field distribution in contactless electric machines with an externally closed magnetic circuit

SOURCE: Elektrotekhnika, no. 10, 1965, 8-11

TOPIC TAGS: electric machine, electric generator

ABSTRACT: Unipolar magnetic fluxes were measured by a ballistic method; magnetic test coils were pasted over the external magnetic circuit. Experimental investigation has shown that a considerable alternating component of the working flux passing through the external frame reduces the efficiency and heats up the generator frame. This component amounted to 12% of the total flux (or to 23% of the working flux) in the case of no air gap between the stator core and the machine frame. The gap presence increased the magnetic flux in the stator core and decreased the

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L 11263-66

ACC NR: AP6000430

alternating flux in the machine frame. This advantage is particularly pronounced in high-frequency high-speed machines. The end leakage flux amounted to about 28% of the working (or 16% of the total) flux. Orig. art. has: 6 figures, 10 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: none

Card 2/2

L 07333-67 EWT(1)

ACC NR: AP6033421 SOURCE CODE: UR/0057/66/036/010/1851/1859

AUTHOR: Andreyev, V. G.

41
B

ORG: none

25

TITLE: An open-cavity resonator for the radio-frequency range

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 10, 1966, 1851-1859

TOPIC TAGS: resonator, cavity resonator, open cavity resonator, radio frequency resonator, radio frequency cavity resonator, signal frequency, radio wave

ABSTRACT: A new type of open-cavity resonator with an expanded area of applications and increased frequency range was investigated theoretically and experimentally. The resonator is composed of two parallel, coaxial, highly conductive disks with the space between them occupied by a number of washer-like rings of smaller diameter at equal or progressively changing distance between them. An analytical method is presented for calculation of the system's parameters. The method is then used for the determination of the dimensions of resonators excitable in the TM_{02n} mode. The results are presented in a series of graphs showing 1) the dependence of the resonance wavelength on the geometry of the system, 2) the effect of the diameter of the end disks on the radiation into space, 3) the effect of the position of the connecting rods, and 4) the loss of high-frequency energy in the rings and in the end disks. An experimental model of the resonator was built and investigated in the SHF (10-cm

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L 07333-67
ACC NR: AP6033421

wavelength) range. With metal connecting rods, the resonance frequency was 3120 Mc; when plastic rods were used, resonance frequency was 3045 Mc. About 10 to 20 percent of the energy was radiated into space. High-frequency losses were found to depend on the position of the metal connecting rods with respect to the resonator axis, the minimum point coinciding with the position of the zero axial component of the electric field. The natural frequencies of the system (with 7 sections) were investigated within the 2000 to 4000-Mc range. Five frequency groups of transverse magnetic oscillations were detected, of which only one (the TM_{02}) had an electric field on the axis. In addition to radio frequency generation, such resonators will be useful in accelerator and measurement technology. Orig. art. has: 9 figures and 25 formulas.

SUB CODE: 09/ SUBM DATE: 05Nov65/ ORIG REF: 005/ OTH REF: 002/ ATD PRESS: 5101

Card 2/2 vmb

BERTINOV, A.I., doktor tekhn.nauk, prof.; ANDREYEV, V.G., kand.tekhn.nauk; [illegible]ENKO, Yu.A., inzh.

Magnetic field distribution in brushless electrical machines with externally short-circuited magnetic circuits. Elektrotekhnika 36 no.10:8-11 O '65. (MIRA 18:10)

ANDREYEV, V.(), glavnyy inzhener.

Continuous-operation construction of a large bridge. Transp.stroi.6 no.6:13-15 Je '56. (MLRA 9:9)
(Bridge construction)

ANDREYEV, V.G.

ANDREYEV, V.G., inzhener; ZINGORENKO, G.I., inzhener.

Bridge for the subway across the Moscow River. Gor.khoz.Mosk. 31 no.8:9-11 Ag '57. (MLRA 10:9)
(Moscow--Bridges)

ANDREYEV, V.G., inzh.; ZINGORENKO, G.I., inzh.; RUDOMAZIN, N.N., inzh.

Constructing a bridge over the Moskva River in Luzhniki.
Transp. stroi. 8 no.9:9-15 S '58. (MIRA 11:10)
(Luzhniki--Bridges, Concrete)

SOV/97-58-11-1/11

AUTHORS: Andreyev, V.G., Zingorenko, G.I. and Rudomazin, M.N. (Engineers)

TITLE: New Two-Tier Bridge in Moscow (Novyy zhelezobetonnyy dvukh"yarusnyy most v Moskve).

PERIODICAL: Beton i Zhelezobeton, 1958, Nr.11, pp.401-410 (USSR)

ABSTRACT: This reinforced concrete bridge over the Moskva river in the Luzhniki district of Moscow is nearing completion. On one side of the bridge is a 44 m long ramp and a 653 m long raised road carried on reinforced concrete supports. This road is in the precincts of the sports ground. The bridge spanning the river is 198 m long. On the other side of the bridge a similar raised road continues leading into a new road cut through the Lenin Hills. Here the Vorob'yevskiy road viaduct is situated. The top tier of the bridge is 21 m wide and is used for vehicle traffic. The bottom tier carries two underground railway lines. The bridge is constructed predominantly from precast reinforced concrete. Elements for the construction of the bridge were manufactured in factories

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of Glavmosstroy. They were assembled with bridge cranes of 50 m span and 45 t capacity, derrick cranes of 35 t capacity and lorry-mounted cranes. The work was started by Mintransstroy in May 1957. It was aimed to build a very light bridge as the permanent loading is only 70% of the maximum loading. The frame was constructed of concrete mark 500, the cross members of concrete mark 400 and a considerable number of other non-structural members were made from Keramzit concrete mark 200. Fig.1 shows the lay-out; Fig.2, perspective view of the bridge, and Fig.3 the constructional scheme of the same. The central span of the bridge is 108 m and the end spans are 45 m each. Two methods of calculation were used which gave similar results (diagrams in Fig.4). Fig.5 shows 2 precast segmental arches of an 'E' cross section forming part of an inner arch. The tie consists of a precast reinforced concrete unit (Fig.7), the reinforcement being a 45 mm diameter cable, formed from 3 mm diameter wires, with breaking limit of 180 kg/mm^2. This reinforcement is grouped together, situated

along the tie-unit and clipped to it at intervals of 2.2 m (Fig.6). This exposed reinforcement will be examined after 18 months to 2 years to ascertain the magnitude of elongation and will be concreted in after rectification. The precast prestressed stiffening beams are tensioned by a series of hydraulic jacks (Fig.7). The larger stiffening beams between the internal arches are tensioned to a total stress of 4000 t by ten 500 t capacity hydraulic jacks. A similar tensioning is applied to the external arches by four jacks effecting a tension of 1650 t. Fig.8 shows a cross-section of the bridge at the lower tier level, Fig.9 the lay-out of the beams in the upper tier; Fig.10, cross-section of the upper tier of the bridge; Fig.11, the saddle detail of the arch frame. This type of saddle does not introduce complementary moments due to forces acting in the horizontal plane. The scaffolding used for the assembly of the bridge was erected on the river bank; this scaffolding was "Mostotrest" standard steel construction. The total weight of the bridge construction is 5000 t. The

assembled unit was transported by means of special supports onto pontoons and placed on the bridge piers (Fig.12). Fig.14 shows the lay-out of the pontoons. The bridge piers were constructed on reinforced concrete piles, 40 x 40 cm in cross section, driven 12-15 m below the base of excavation (Fig.15). Each pier is carried on 256 piles. The height of the piers, including the foundation, is 8 m; their length is 40.5 m. The elevated road was constructed from precast stanchions, situated 23.7 m apart and bridged over by cantilevered trusses, the latter spanning 13.5 m and cantilevered out for 5.62 m on both sides (Figs.16 and 17). The roadway is formed of prestressed reinforced concrete "U" shaped beams weighing 38 t (Fig.18). These beams are covered with precast slabs which are joined with in situ concrete (Fig.19).

Card 4/4 There are 19 figures.

ANDREYEV, V.G.; PETROPAVLOVSKIY, A.A. (Moskva)

Designing the river span of the subway bridge in Luzhniki.
Stroi.mekh.i rasch.soor. 1 no.5:35-40 '59. (MIRA 13:1)
(Moscow--Bridges--Design)

ANDREYEV, V.G., inzh.

Elevated road across the Crimea Square in Moscow.
Transp.stroi. 10 no.8:13-15 Ag '60.
(MIRA 13:8)
(Moscow--Bridge construction)

ANDREYEV, V.G., inzh.

Using prestressed reinforced concrete in constructing railroad bridges. Bet.i zhel.-bet. no.7:306-310 Jl '60. (MIRA 13:7)
(Railroad bridges) (Prestressed concrete)

ANDREYEV, V.G., inzh.

The expedient limiting length of reinforced concrete full-span beams. Transp. stroi. 12 no.8:42-44 Ag '62. (MIRA 15:9)
(Bridges, Concrete) (Beams and girders)

KUZ'MIN, Ye.I., inzh.; ANDREYEV, V.G., inzh.

Readers' letters. Bet. i zhel.-bet. no.11:530-531 N '60. (MIRA 13:11)
(Bridges, Concrete)

ANDREYEV, V.G., inzh.

Manufacture and assembly of spans for the city bridge in Leninbad.
Transp.stroi. 13 no.9:12-15 S '63.

ANDREYEV, V.G.

Bridge construction during the past 10 years. Transp. stroi. 14 no.10:4-7 O '64. (MIRA 18:3)

1. Nachal'nik tekhnicheskogo otdela Glavnogo upravleniya po stroitel'stvu mostov Ministerstva transportnogo stroitel'stva SSSR.

ANDREYEV, V.G., gornyy inzh.; D'YAKONOV, L.D., gornyy inzh.

Testing systems of dry centralized dust collecting during boring with a column hammer drill. Gor. zhur. no.4:64-67 Ap '65. (MIRA 18:5)

1. Nauchno-issledovatel'skiy i proyektnyy institut "Gipronikel'", Leningrad.

ANDREYEV, V. I.

"Investigation of Mine Pressure in the Shield Lavas of the Moscow Basin." Cand Tech Sci, Podmoskovnyy Sci-Res Coal Inst (PNIUI), Moscow, 1954. (KL, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Instiutions (12)
SO: Sum. No. 556, 24 Jun 55

ANDREYEV, V.

Testing mechanized mine timbering in the Moscow coal basin. Mast.ugl.3 no.1:13-15 Ja '54. (MLRA 7:1)

1. Nachal'nik laboratorii Podmoskovnogo nauchno-issledovatel'skogo ugol'nogo instituta. (Mine timbering)

TRUMBACHEV, Vladimir Fedorovich, kandidat tekhnicheskikh nauk; ANDREYEV, V.I., otvetstvennyy redaktor; RATNIKOVA, A.P., redaktor izdatel'stva; NADEINSKAYA, A.A., tekhnicheskiy redaktor; KOROVENKOVA, Z.A., tekhnicheskiy redaktor

[Distribution of stress throughout mine workings] Raspredelenie napriazhenii vokrug gornykh vyrabotok. Moskva, Ugletekhizdat, 1956. 124 p. (Mining engineering) (MLRA 9:12)

ANDREYEV

SPIVAKOVSKIY, Aleksandr Onisimovich, prof.; POD"YEMSHCHIKOV, Yuriy Konstantinovich, dots., kand. tekhn. nauk; ANDREYEV, V.I., otvetstvennyy red.; ALADOVA, Ye.I., tekhn. red.

[Movable mechanized timbering] Peredvizhnye mekhnizirovannye krepi. Moskva, Ugletekhnizdat, 1958. 249 p. (MIRA 11:7)

1. Chlen-korrespondent Akademii nauk SSSR (for Spivakovskiy).
(Mine timbering)

ANDREYEV, V.I.; KUPRIN, V.I.

Using geological and geophysical data for evaluating the iron potential of deep horizons in the Tashtagol deposit. Geol.i geofiz. no.8:82-94 '61. (MIRA 14:9)

1. TSentral'naya geofizicheskaya ekspeditsiya, Stalinsk.
(Gornaya shoriya—Iron ores)

ANDREYEV, V.I., dotsent, kand. tekhn. nauk

Movement of side rocks in the operation of portable mechanized supports in Moscow Basin mines. Nauch. trudy Tul. gor. inst. no.4:34-54 '61. (MIRA 16:8)

(Moscow Basin--Rock pressure)
(Mine timbering)

ANDREYEV, V.I.; MEL'NIKOV, L.A.

Magnetic logging device for measuring the susceptibility of rocks and ores. Sbor.luch.rats.predl. pt. 2:38-45 '63. (MIRA 17:5)

1. Severo-Kazakhstanskoye geologicheskoye upravleniye.

ABRAMOVA, Ye.I., [illegible], V.I., [illegible], V.A.

Regularities of the changes in the dielectric indices of plasticized polyvinyl chloride. Izv. vys.uchseb.zav.; khim.i khim.tekh. 8 no.4:655-658 '65.

(MIRA 18:11)

1. Kafedra khimii i fiziki Kuzbasskogo inzhenerno-stroitel'nogo instituta.

SPEYSHER, Vladimir Anatol'yevich; ANDREYEV, Vladimir Il'ich; KHITRIN, L.N., otvetstvennyy redaktor; GRIGOR'YEV, Ye.N., redaktor izdatel'stva; POLYAKOVA, T.V., tekhnicheskiy redaktor

[Combustion of gas obtained by underground gasificationin tunnel burners with premixtures] Szhiganie gaza podzemnoi gazifikatsii v tunnel'nykh gorelkakh predvaritel'nogo smesheniia. Moskva, Izd-vo Akademii nauk SSSR, 1956. 67 p. (MLRA 9:7)

1. Chlen-korrespondent AN SSSR (for Khitrin)
(Coal gasification) (Combustion)

Moscow Power Engr. Inst. im. V. M. Molotov; Andreyev: Acad. Sci. USSR

Experiments with tunnel burners having high individual capacities and high rates of heat release are recorded.

SOV/137-59-[illegible]

Translation from: Referativnyy zhurnal Metallurgiya 1959 Nr 2 p [illegible] (USSR)

AUTHORS: Speysher, V. A., Andreyev, V. I.

TITLE: Effect of Preheating of Gas-air Mixtures on the Stability of Ignition in Tunnel Burners (Vliyaniye podogreva gazo-vozdushnykh smesey na ustoychivost' zazhiganiya v tunnel'nykh gorelkakh)

PERIODICAL: V sb.: Issled. protsessov goreniya Moscow AN SSSR 1958 pp 27-30

ABSTRACT: The authors investigated the range of stability of the ignition of pre heated gas-air mixtures in tunnel burners on a large laboratory appa ratus by the method of a slow (incremental) approach to the pre separation conditions with periods sufficiently long for the establishing of a constant tunnel temperature at each intermediate step. Mixtures containing 99% CH_4 and 99% H_2 were heated to 100, 200, 300 and 400°C. At the maximum preheating of the mixture the limiting excess air factor increases by 100-150%.

N. V.

Card 1/1

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11,7200

S/112/59/000/014/008/085
A052/A001

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 14, pp.18-19
28650

AUTHORS: Volodina, L. A., Andreyev, V. I.

TITLE: The Effect of Air Preheating on the Process of Flame Stabilization by Poorly Streamlined Bodies in the Open Flow

PERIODICAL: V sb.: Issled. protsessov goreniya, Moscow, AN SSSR, 1958, pp.36-38

TEXT: The effect of air preheating on the stabilization limits of methane-air flame was studied. The investigation was carried out on a round burner made of stainless steel 18 mm in diameter at outflow speeds of 20-200 m/sec. The air was preheated enabling to raise the temperature of mixture at the stabilizer up to 400°C. Tapers 5, 7, and 9 mm in diameter placed on the edge of the burner were used as stabilizers. In the first series of experiments the effect of air preheating at a taper 7 mm in diameter was investigated; in the second series of experiments the effect of the size of the taper on the stabilization limits with respect to the air excess ratio and the speed of the mixture

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The Effect of Air Preheating on the Process of Flame Stabilization by Poorly Streamlined Bodies in the Open Flow

was investigated. For poor mixtures the effect of preheating is much more essential than for the rich ones. An increase in the diameter of a stabilizer at the same temperature of the flow leads to a widening of stabilization limits.

A. D. A.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

SPEYSHER, V.A.; ANDREYEV, V.I.; SHIMANOVSKIY, O.V.

Powerful tunnel-type burner for the combustion of low-calorific power gases. Gaz.prom. 5 no.7:20-26 '60. (MIRA 13:7)

(Gas burners)

ANDREYEV, V.I.

Effect of mechanical strains on magnetic properties of magnetite ores.
Geol. i geofiz. no.7:129-132 '60. (MIRA 13:9)

1. Zapadno-Sibirskoye geologicheskoye upravleniye.
(Magnetite—Magnetic properties)

GRUZIN, P.L.; SEMENIKHIN, A.N.; ANDREYEV, V.I.

Equipment for measuring internal friction in metals. Met. i metalloved. chist. met. no. 4:194-197 '63. (MIRA 17:5)

ANDREYEV, V.[illegible] Inzh.

Pseudoalloys replace bronzes. Mashinostroenie no.2:8-10 Mr-Ap '66. (MIRA 18:6)

ANDREYEV, V.I., inzh.; ETIN, I.Z., inzh.

Automatic forging with hydraulic presses. Mashinostroenie no.3:51-52 My-Je '65. (MIRA 18:6)

ANDREYEV, I.I.; ANDREYEV, V.I.

Parts made of compressed wood. Mashinostroitel' no.4:35-37 Ap '65.
(MIRA 18:5)

ANDREYEV, V.I.

Electromagnetic field in the wave zone of [illegible] low-frequency dipole for a three-layered medium. Geol. i geofiz. no.11:148-153 '64. (MIRA 18:4)

1. Dnepropetrovskiy gornyy institut.

ANDREYEV, V.I.

On the road of technological development. Mashinostroitel' no.10:5-6 O '61. (MIRA 14:9)

1. Direktor Nevskogo mashinostroitel'nogo zavoda imeni V.I. Lenina.

(Leningrad--Compressors)
(Leningrad--Gas turbines)

CHERNYAK, B.Ya.; ANDREYEV, V.I.; MARKOV, V.P.

Nonuniform mixture distribution in the cylinders of carburetor engines. Avt. prom. no. 1:29-31 Ja '61. (MIRA 14:4)

1. Laboratoriya dvigateley AN SSSR.
(Automobiles--Engines--Combustion)

ANDREYEV, V.I.

Determining antidetonant concentration in fuel feeded to the cylinders of a multicylinder carburetor engine. Avt. prom. 30 no.7:10-13 Jl '64. (MIRA 17:9)

1. Moskovskiy avtomobil'no-dorozhnyy institut.

KUZNETSOV, L.A., doktor tekhn. nauk; ANDREYEV, V.I.;
BOGORADOVSKIY, G.I.; BURDIN, A.A.; KRIENSKIY, A.A.;
FAYNSHTEYN, A.A.; SHABASHOV, S.Z.

[The GT-700-5 gas turbine system] Gazoturbinnaia ustanovka GT-700-5. Moskva, Mashinostroenie, 1964. 190 p.
(MIRA 17:5)

L 24774-65 EWT(m)/EPF(c)/T Pr-4 WE

ACCESSION NR: AP5001142 S/0113/64/000/007/0010/0013

AUTHOR: Andreyev, V.I.

TITLE: Determining the concentration of antiknock compounds in fuel supplied to the cylinders of multi-cylinder gasoline engines

SOURCE: Avtomobil'naya promyshlennost', no. 7, 1964, 10-13

TOPIC TAGS: internal combustion engine, gasoline engine, antiknock compound, multi-cylinder engine, fuel quality

ABSTRACT: In standard gasoline engines, one carburetor delivers fuel to more than one cylinder. The quality of the fuel therefore varies in different cylinders, as tests have shown. One of the most important problems is the distribution of antiknock compound among the cylinders. Determination of the degree of irregularity of antiknock compound distribution in the different cylinders is connected with great difficulties. The present paper describes a method based on the effect of the antiknock compound for each individual cylinder. Engine knocks are determined by the octane number of the fuel, which depends on the concentration of the antiknock compound in the fuel. An equation is given showing this relationship. In some cases, this relationship is not linear due to the type of fuel and

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ACCESSION NR: AP5001142

engine design. Other factors also change the angle of advance (compression ratio, shape of combustion chamber, heated condition, etc.). A test is described with a MZMA-407 engine using fuel consisting of 70% isooctane and 30% heptane. For a 1-3-4-2 firing order the middle cylinders had an enriched mixture. Turning of the carburetor 180° horizontally did not change the degree of irregularity of the fuel supply. The film of fuel in the delivery manifold was separated into fractions, depending on the content of tetraethyl lead. The tests were performed at speeds of 1400, 1800, 2000 and 2200 rpm with two antiknock compounds. Orig. art. has: 4 figures and 2 equations.

ASSOCIATION: Moskovskiy avtomobil'no-dorozhnyy institut (Moscow Automobile and Highway Institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: FP,PR

NO REF SOV: 003 OTHER: 004

Card 2/2

ANDREYEV, V.I., inzh.

Mounted attachment for motortruck loaders. Mekh.i avtom.proizv. 16 no.3:42-43 Mr '62. (MIRA 15:4)
(Loading and unloading--Equipment and supplies)

ANDREYEV, V.I., inzh.; KUZNETSOV, L.A., doktor tekhn. nauk

Manufacture of gas turbines at the Nevskii Machinery Plant.
Energomashinostroenie 10 no.7:1-4 Jl '64. (MIRA 17:9)

ANDREYEV, V.I.

Taking into account certain demagnetizing factors when interpreting magnetometric data. Geol. i geofiz. no.11:113-115 '60.
(MIRA 14:2)

1. Zapadno-Sibirskoye geologicheskoye upravleniye, g.Stalinsk.
(Magnetic prospecting)

MALIKOV, K.V.; PISHVANOV, V.L.; SUNTSOV, G.N.; STAROVEROV, A.A.; OVCHARENKO, V.M.; ANDREYEV, V.I.; MAZIN, B.S.; RUN'KOV, V.I.; SEMAVIN, P.I.

Using sulfurous mazut in blast furnaces. Stal' 23 no.5:394-397 My '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplotekhniki i Beloretskiy metallurgicheskiy kombinat.
(Blast furnaces--Equipment and supplies)
(Mazut--Analysis)

ANDREYEV, V.I., inzh. po mekhanizatsii sluzhby puti

Cleaning the spacing between rails after snow storms. Put' i put.khoz. 5 no.12:28 D '61. (MIRA 15:1)

1. Yuzhno-Sakhalinskaya doroga.
(Railroads--Snow protection and removal)

ANDREYEV, V.I.; GOLOUL'NIKOV, Ye.M.; OVCHARENKO, G.I.; KHASKIN, I.N.

Improving the standards of measuring equipment. Stan.i instr. 32 no.9:33-36 S '61. (MIRA 14:8)
(Measuring instruments--Technological innovations)

S/121/61/000/009/004/006
D040/D113

AUTHORS: Andreyev, V. I., Goloul'nikov, Ye. M., Ovcharenko, G. I., and Khaskin, I. N.

TITLE: Raising the level of measurement techniques

PERIODICAL: Stanki i instrument, no. 9, 1961, 33-36

TEXT: The article lists measuring instruments and automatic measuring process control devices being currently produced by the zavod "Kalibr" ("Kalibr" Plant). The following items are mentioned. (1) A profilograph-profilometer, developed by "Kalibr" in cooperation with Vsesoyuznyy elektrotekhnicheskiy institut im. V. I. Lenina (All-Union Electrotechnical Institute im. V. I. Lenin). It is the first Soviet instrument for surface roughness measurements in accordance with the international roughness criterion Ra (mean arithmetical deviation of microscopic unevenness from the mean profile line) that will be introduced in the USSR on January 1, 1962. The instrument consists of a post bearing the measuring table and electric drive, an electric measuring unit, and a recorder; all three separate units weigh 80 kg together and are transportable; the system produces 200,000 times

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magnification, and the feeler exerts pressure not above 0.1 g. (2). A feeler type instrument checking roundness of workpieces by measuring induction and producing records by electro-thermic means on a metallized round diagram. It has been designed in cooperation with ENIMS and is also first of its kind in the USSR. (3) Indicator calipers with "cogged-lever" measuring head and dial, eliminating the usual rocking for finding the real diameter of the bore. Calipers for bores up to 18 mm in diameter have a combination of centering and measuring ball points, and calipers for 18-55 mm bores have a rigid centering bridge. Calipers for above 50 mm are pneumatic and universal, i.e. adjustable in a diameters range with the use of a special setting device that is seen in a photograph. Scales of the measuring heads are graduated in 0.001 mm divisions. (4) Levels with 0.01 mm divisions per meter, for measurement of incline on flat and cylindrical surfaces. The levels have a micrometer head for readings and an optic system for zeroing the bubble in the ampoule. (5) Gage blocks of much higher accuracy than previously, produced in accordance with the latest GOST 9038-59 (GOST 9038-59) standard requirements and having a cohesion force of 5-7 kg-f. (6) An automatic machine sorting balls 1-3 mm in diameter with an accuracy to hundredths of one micron. It is based on measurement of electric induc-

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tion and has the pickup and the electronic measuring unit of a "Калибр-ВЭИ" ("Kalibr VEI") profilograph-profilometer, and an automatic set-up system moving a master ball once in an hour into measuring position for corrections. The machine has been tested at the 4ГПЗ (4GPZ) plant. A range of such machines will be produced for balls from 3 to 40 mm and from 0.3 to 1 mm in diameter. (7) "Калибр-МАМИ" ("Kalibr-MAMI") measuring and controlling devices for circular grinders with hydraulic drive working with plunge-cut process. They have been produced in cooperation with MAMI, the Moskovskiy avtomekhanicheskiy institut (Moscow Automechanical Institute). The "Kalibr-MAMI" have a measurement range of 6-80 mm and make possible grinding of parts with up to 1.2 mm allowance. In test on "3151" and "3161" grinders of the Khar'kov plant they doubled the work rate, and grinding accuracy corresponded 1st class. (8) A series of measuring-controlling devices, designed at the ОКБ Mosgorsovnarkhoza (OKB of the Moscow City Sovnarkhoz), for automatic transfer lines. Three of such automatics are briefly described and shown in photographs: for internal combustion engine valves, for universal joint bearing rings, and for tractor wheel axles. Photographs are also given of the profilograph-profilometer, the three types of the calipers, the precision level, the ball-sorting automatic, and the "Kalibr-MAMI."
There are 11 figures.
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ANDREYEV, V.I.; BELKIN, S.R.; BOYAROV, A.I.; DEMINOV, I.A.; OVCHARENKO, G.I.

Automatic machine for precision sorting of small bearing balls. Stan. i instr. 32 no. 1:25-27 Ja '61. (MIRA 14:2)
(Sorting devices)

ANDREYEV, Vasiliy Ivanovich, dotsent kand. voyenno-morskikh nauk, kontr-admiral; SOLOV'YEV, D.I., kapitan 1 ranga zapasa, red.; SOKOLOVA, G.F., tekhn. red.

[Control of oceanic communications; as revealed by experience of the two world wars] Bor'ba na okeanskikh kommunikatsiiakh; po opytu dvukh mirovykh voin. Moskva, Voen. izd-vo M-va oborony SSSR, 1961. 373 p. (MIRA 14:10)
(European War, 1914-1918—Transportation)
(World War, 1939-1945—Transportation)

ANDREYEV, V.I., inzh.; MOLDAVSKIY, M.S., inzh.

Optical method for checking the installation of mechanical hatch covers. Sudostroenie 26 no.9:63-65 S'60. (MIRA 13:10)
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"Urgent problems of modern dysentery in children."

Report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists. 1959

ANDREYEV, V.I.

Determining the direction of the vector of residual magnetism from structural characteristics of magnetite ores of the Tashtagol deposit. Geol. i geofiz. no.5:121-125 '60. (MIRA 13:9)

1. TSentral'naya geofizicheskaya ekspeditsiya.
(Gornaya Shoriya--Ores--Magnetic properties)

3 (7)

AUTHORS: Selivanov, R. I., Andreyev, V. I. SOV/50-59-3-6/24

TITLE: On the Level Conditions and the Probable Evolution of the Sarez-Lake (O rezhime urovnya i vozmozhnoy yego evolyutsii Sarezskogo ozera)

PERIODICAL: Meteorologiya i gidrologiya, 1959, Nr 3, pp 32 - 35 (USSR)

ABSTRACT: The lake was situated in Central Pamir 3210 m above sea level. It was formed by an earthslide in 1911. The gorge of the Murgab River was separated by a wall of rocks of a length of 3-4 km and a height of more than 500 m. 3 years later a weak subterranean discharge of the lake in the Bartang River formed which is still present. The lake was also visited: 1913 by G. A. Shpilko and D. D. Bukinich, 1926 by N. G. Kolbasin and C. K. Lange, in 1925 I. A. Preobrazhenskiy, in 1929 N. I. Kovshenevskiy, 1936 V. S. Kolesnikov, and 1934 P. P. Chayenko pointed to the process of the progression of the upper course of the Bartang River into the lake basin. In 1932 the hydrometeorological station Lake was established at the lake. In 1936 the following persons carried out investigations at the lake: V. V. Andreyev Head of the Station, V. V. Ratsek, climatologist and topograph

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and A. V. Gurskiy, Director of the Pamirskiy botanicheskiy sad (Pamir Botanical Garden). In 1949 Akelov said that in about 20 years the filling up by the upper course of the Bartang will be out. (Ref 1). Also the two other scientists Ratsek and Gurskiy regarded this process as possible. The authors of the present paper are of the opposite opinion. They point to the hydrometrical investigations, according to which it was found that the level of the lake rose from its formation until 1945 and that since 1945 it is subject to cyclic fluctuations. The investigations showed that the climatic conditions did not considerably change in the course of the years and that they influenced only the seasonal fluctuations. In summer 1957 the Akademiya nauk Tadzhikskoy SSR (Academy of Sciences of the Tadzhikskaya SSR) organized an expedition to this lake. A theodolite traverse was set up along the filling up from the level of the lake up to the place where the water of the Bartang flows out and the section was determined. The investigations showed that in the evolution of the lake not the rising of the level of the lake will play the main part but the intensive penetration of the upper course of the Bartang and the subterranean washout

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of the northern part of the filling up. If the present rate of this penetration will remain unchanged and if the evolution of the intrenchments will continue, the formation of a valley may take hundreds of years. In the course of this development the level of the lake will gradually sink. During the first great stage of the washout of the filling up the level will not drop by more than 150 - 160 m. A catastrophic sinking even during the first stage is not to be expected. In all cases the development of the lake into a lake with drainage will take place slowly. There are 5 figures and 2 Soviet references.

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