EL'YASBERG, M.Ye.; VERKHOLAT, M.Ye.; PUBASHKIN, I.B.

"Electric industrial equipment" by A.S. Sandler. Reviewed by M.E. El'iasberg, M.E. Verkholat, I.B. Pubashkin. . . Elektrichestvo no.8:95-96 Ag '60. (MIRA 13:8)
(Machine tools)
(Sandler, A.S.)

S/121/62/000/010/001/005
D040/D112

AUTHOR: El'yasberg, M.Ye.

TITLE: The fundamentals of a theory of self-excited chatter in metal-cutting

PERIODICAL: Stanki i instrument, no. 10, 1962, 3-8

TEXT: This article, which is to be continued, deals with a new theory explaining the self-excited chatter in metal cutting (M.Ye. El'yasberg, "Izvestiya AN SSSR, ONTI", no. 9, 1958; M.Ye. El'yasberg, "Stanki i instrument", no. 3, 1959), based on the discovery that the cutting force P and the friction force Q on the cutter face (Fig.1) are "delayed" forces, i.e. forces coming into effect with a delay. The article contains more accurate data on the constants characterizing this delay in cutting different steels with different speeds and feeds. This data, gathered since publication of the author's earlier work, will make it possible to calculate vibration-free machine tools more accurately. The chip formation process is analyzed, and illustrated by graphs and high-speed photographs. Empirical research data are given for low-carbon and high-carbon steel grades 25 and 50. The data are accompanied by graphs. There are 10 figures.

Card 1/2

S/121/62/000/011/001/002
D040/D112

AUTHOR: El'yasberg, M. Ye.

TITLE: The fundamentals of the self-excited chatter theory

PERIODICAL: Stanki i instrument, no. 11, 1962, 3-6

TEXT: This is the end of an article which started in "Stanki i instrument", no. 10, 1962, and deals with a new theory of self-excited chatter in metal-cutting machine tools. This theory is based on the discovery of the lagging effect of the cutting and friction forces, and helps to calculate vibration-free machine tools more accurately. Linear equations are derived for calculating systems with two degrees of freedom, and general recommendations are made for simplifying the calculation of complex systems for vibration-free operation, with the use of electronic simulation. There are 4 figures.

Card 1/1

KRYSANOV, V.I., inzh.; FUKS, A.I., inzh.; EL'YASBERG, M.Ye., inzh.

Technical and economic analysis of the dimensional spacing of machine tools. Vest. mashinostr. 45 no.5:70-75 My '65. (MIRA 18:6)

EL'YASBERG, P.Ye.

EL'SBERG, P.Ya.

Determining the density of the upper atmosphere by means of secular changes in the elements of orbits of the first two artificial earth satellites. Isk.sput.Zem. no.1:21-24 '58.
(MIRA 12:2)

(Artificial satellites)
(Atmosphere, Upper--Rocket observations)

EL'YASBERG, P. YE.

29(0) PHASE I BOOK EXPLOITATION SOV/1658

Akademiya nauk SSSR

Iskusstvennyye sputniki zemli, vyp. 1: Rezul'taty nablyudeniy, provedennykh po programme MGG pri pomoshchi pervogo i vtorogo iskusstvennykh sputnikov zemli (Artificial Earth Satellites, Nr 1: Results of Scientific Studies Carried Out in Accordance With the IGY Program by Means of the First and Second Artificial Earth Satellites) Moscow, Izd-vo AN SSSR, 1958. 95 p. 3,500 copies printed. (Microfilm and Xerox Copy)

Resp. Ed.: L.V. Kurnosova; Ed. of Publishing House: D.M. Alekseyev; Tech. Ed.: Z.V. Polyakova.

PURPOSE: This collection of articles is the first in a series to be published regularly and is intended to disseminate to the scientific community data collected in investigations performed by means of artificial earth satellites.

COVERAGE: This collection includes papers covering scientific data obtained from the first and second Soviet artificial earth satellites. Among the areas reported on are measurements of cosmic radiation, atmospheric density, electron concentration in the ionosphere, and biological studies of an animal occupant of a satellite. Papers on the motions and perturbations of satellite orbits and optical and Doppler methods of satellite tracking are also included. Coverage of the individual articles is given in the Table of Contents.

Blyudkin, P.Ye. Determination of the Density of the Outer Atmosphere From Secular Variations of the Orbital Elements of the First Two Artificial Satellites 21

This paper discusses the analytical method used to determine the effect of air resistance on the secular variations of the orbital elements

Artificial Earth Satellites (Cont.) SOV/1658

of artificial satellites. The paper also presents the results of determinations of the density based on observations of two sputniks, and the rocket-carrier of the first. The mean square error in the minimum altitude is estimated at 1.5 km for Sputnik I and 1.9 km for Sputnik II. The mean density from the observations of Sputnik I and its rocket carrier were somewhat lower than the values obtained for Sputnik II. A study of the sources of error leads to the conclusion that the overall error in density does not exceed 30 percent. There are 4 references, 2 of which are Soviet, 2 translations from English. 21

El'yasberg, P.Ye.

29(0) PHASE I BOOK EXPLOITATION SOV/3065

Iskusstvennyye sputniki zemli, vyp. 3 (Artificial Earth Satellites, No. 3) Moscow, Izd-vo Akademii nauk SSSR, 1959. 125 p. 5,500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR.

Resp. Ed.: L.V. Kurnosova; Ed. of Publishing House: L.V. Samsonenko; Tech. Ed.: Yu. Rylina.

PURPOSE: This collection of articles is the third in a series intended to disseminate data collected from artificial earth satellite investigations to scientists.

COVERAGE: The collection of articles deals with various problems arising in the operation of artificial satellites. The papers also cover the use of artificial satellites as scientific instruments for various types of geophysical investigations.

AVAILABLE: Library of Congress

AC/jb
12-30-59

Card 3/3

EL'YASHBERG, P.Ye.

Relationship between secular changes in orbit elements and the air resistance. Isk. sput. sem. no.3:54-60 '59.
(MIRA 12:12)

(Artificial satellites)

EL'YASBERG, P.YE.

PHASE I BOOK EXPLOITATION SOV/4281

Akademiya nauk SSSR

Iskusstvennyye sputniki zemli, vyp. 4 (Artificial Earth Satellites, No. 4) Moscow, 1960. 205 p. Errata slip inserted. 6,500 copies printed.

Resp. Ed.: L.V. Kurnosova; Ed. of Publishing House: M.I. Fradkin; Tech. Ed.: T.P. Polenova.

PURPOSE: This collection of articles is intended to disseminate data collected in investigations performed by means of artificial earth satellites.

COVERAGE: The collection consists of 15 articles dealing with scientific data on Soviet artificial earth satellites (AES) and cosmic rockets. The topics discussed include measurements of the density of the upper atmosphere, motion of AES, measurements of micrometeorites and meteoric matter, magnetometric measurements of cosmic rays, electrical potential, and spectrum of positive ions. The collection is part of a series published regularly. References follow each article.

Card 1/6

TABLE OF CONTENTS:

The article discusses one of the possible methods of determining the conditions of illumination of satellites. The relative motion of the first, second, and third Soviet AES to the earth is briefly analyzed.

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Card 5/6

Artificial Earth Satellites, No. 4 SOV/4281

Corrections 205

AVAILABLE: Library of Congress

Card 6/6

AC/pw/gmy
9-22-60

EL'YASHBERG, P.Ye.

Determination of the orbit from two positions. Isk.sput.Zem. no.13:3-22 '62. (MIRA 15:7)
(Artificial satellites--Orbits)

EL'YASHERG, P. YE. (Moscow)

"Approximate formulas for determining the life-time of Earth satellites".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964.

ACCESSION NR: AP4034792 S/0293/64/002/002/0198/0218

AUTHOR: El'yasberg, P. Ye.

TITLE: Approximate formulas for determining the lifetime of artificial Earth satellites

SOURCE: Kosmicheskiye issledovaniya, v. 2, no. 2, 1964, 198-218

TOPIC TAGS: satellite, artificial earth satellite, sputnik, satellite lifetime, air resistance

ABSTRACT: It is well known that the lifetime of artificial Earth satellites is basically determined by the effect of atmospheric resistance, but also by the perturbing influence of the Moon and Sun. The present article deals with the derivation of approximate formulas for determining the lifetime of such artificial satellites, flying at a relatively low height, for which the air resistance is decisive while other disturbing factors may be disregarded. The following are the author's fundamental assumptions in this connection: 1. The Earth is a sphere with radius $R = 6371$ km. 2. In determining the orbit, only the attraction toward the Earth and the air resistance are taken into account. 3. The acceleration due to gravity is directed toward the center of the Earth and its modulus equals $g = \mu/r^2$, where r is the distance from the center of the Earth and the coefficient $\mu = 3.986 \cdot 10^5 km^3/sec^2$. The deceleration due to air resistance J is determined by the formula $J = c\rho v^2$, $c = \frac{c_x F_m}{2m}$,

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ACCESSION NR: AP4034792

where ρ is the density of air, v is the speed of the satellite with respect to the air, c_x is the air resistance, F_m and m are the area of the mid section and mass of the satellite. 5. The effect of atmospheric rotation can be disregarded. 6. The air density ρ depends only on the flight altitude h = r - R. 7. The air density ρ as a function of the altitude h is determined on the basis of the socalled isothermic model of the atmosphere, according to which $\rho = \rho_p \exp\left(-\frac{h-h_p}{H}\right)$, where hp is the height of orbital perigee; ρ_p is the air density at the height hp; H is the height of the uniform atmosphere at perigee. If any other arbitrary atmospheric model is used, the constants ρ_p and H should be determined from the formulas: $\rho_p = f(h_p)$, $H = \frac{f(hp)}{df(hp)/dh} = -\frac{1}{d\ln p(hp)/dh}$ Table 1 in the original shows the values of ρ (h) and H, determined by this formula, for the atmospheric model CIRA-1961 which was used in this paper. The author then considers the following basic aspects of this general problem: secular perturbations of orbital elements, satellite lifetime in circular orbits, the lifetime of satellites in orbits with considerable eccentricities, the life ime of satellites in orbits with small eccentricities. The result is a system of approximate formulas which embrace

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ACCESSION NR: AP4034792

the entire possible range of eccentricity $0 \leq e < 1$. The article concludes with a comparative analysis and evaluation of the accuracy of the derived formulas, in which the author points out that these formulas contain errors caused by neglecting the principal sources of perturbations i.e., the elliptical shape of the earth, the lunar and solar attraction and the heterogeneous structure of the atmosphere. The lifetime of a satellite also depends on the eccentricity of its orbit, and the formulas derived are valid only at eccentricities far from the critical value. Orig. art. has: 2 figures, 4 tables and 51 formulas.

ASSOCIATION: none

SUBMITTED: 14Nov63 ENCL: 00

SUB CODE: SV NO REF SOV: 004 OTHER: 003

Card 3/3

L 25670-66 ENT(1)/ENP(m)/EWA(d) GW

ACC NR: AM6008482 Monograph UR/ 69 58 13+1

El'yasberg, Pavel YEfimovich

Introduction to the theory of flight of artificial Earth satellites (Vvedeniye v teoriyu poleta isskusstvennykh sputnikov Zemli) Moscow, Izd-vo "Nauka," 1965. 540 p. Illus., biblio., index., tables. 3700 copies printed. Series note: Mekhanika kosmicheskogo poleta

TOPIC TAGS: space flight, artificial satellite orbit, space tracking, astronautics, spacecraft altitude

PURPOSE AND COVERAGE: The author attempts to give a systematic outline of the theory of flight of artificial Earth satellites. Much attention is paid to the formulation of laws governing the motion of a satellite on the unpowered-flight portion of its trajectory but for the sake of continuity, the book includes certain subjects which are usually dealt with in classical celestial mechanics. However, the basic content of the book consists in the analysis of problems which are usually not considered in the classical celestial mechanics textbooks, but are of paramount importance for the solution of problems of the flight theory of artificial earth satellites, such as: investigation of satellite motion along circular and almost circular orbits; analysis of all possible versions of perturbed orbit

Card 1/4 UDC: 629.195.1

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passing through two given points; the effect of variation of initial conditions of motion on the elements of elliptical orbits; variation of current characteristics of motion (of coordinates and of velocity vector components) due to deviation from the initial conditions of motion; the effect of the oblatness of the Earth and of air resistance on the motion of artificial satellites; determination of the life of satellites, and the effect of the perturbation of the Sun and the Moon on the motion of the Earth's artificial satellites. The book is intended for a wide range of specialists who encounter various problems in the flight theory of artificial satellites, and also for university students having courses on the subject of above theory. Contributions to the preparation of the book were made by the following: V. Ye. Volkov, I. G. Miroshnichenko, I. F. Petrovich, Ye. G. Portnov, A. I. Tkanchenko, A. A. Usikov, V. G. Khoroshavtsev, M. S. Shirokov, Z. K. Kuznetsova, Z. G. Androsova, and L. N. Kasatkina.

TABLE OF CONTENTS [abridged]:

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ACC NR: AM6008482 O

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L 25670-66
ACC NR: AM6008482 O

SUB CODE: 02, 03/ SUB DATE: 09Nov65/ ORIG REF: 030/ OTH REF: 006

Card 4/4 dkl a

GVOZDEV, V.S., kandidat tekhnicheskikh nauk; EL'YASBERG, S.Ye., inzhener.

Rebuilding of old dams serving metallurgical plants in the Urals. Stal' 16 no.9:831-835 S '56. (MLRA 9:11)

1. Sverdlovskiye filialy Vsesoyuznogo instituta elektrifikatsii sel'skogo khozyaystva.
(Ural Mountain region--Metallurgical plants) (Dams)

El'yasberg, S. Ye.

AUTHOR: El'yasberg, S. Ye., Engineer, 98-1-13/20

TITLE: Packing of Loam Into Cavities of a Spillway Under Winter Conditions (Ukladka suglinka v pazukhi vodosbrosa v zimnikh usloviyakh)

PERIODICAL: Gidrotekhnicheskoye Stroitel'stvo, 1958, #1, pp 50 (USSR)

ABSTRACT: In March 1957, the necessity arose to complete the spillway of a hydroelectric power plant, under construction by "Ural-spetsstroy". The packing of loam was started on March 24, and finished by April 7, at average daily temperatures of + 0.5° to - 15.1°C. Prior to starting, snow and ice was removed, and the foundation was heated with open fires. Loam was handled by an excavator with a capacity of 0.5 cu m. The accomplished work proved the practicality of filling-up dams with loam under such temperatures, the work is carried out carefully, and the quarry is located nearby.

AVAILABLE: Library of Congress

Card 1/1

EL'YASBERG, S. YE.

AUTHOR: El'yasberg, S.Ye., Engineer 98-58-5-17/33

TITLE: Rationalization and Inventions (Ratsionalizatsiya i izobretatel'stvo). The Use of Slag in Hydrotechnical Construction (Primeneniye shlaka v gidrotekhnicheskom stroitel'stve)

PERIODICAL: Gidrotekhnicheskoye Stroitel'stvo, 1958, Nr 5, pp 49-50 (USSR)

ABSTRACT: In the Urals, basic and sour metallurgical slag is very often applied in the construction of low-pressure dams. The slag is used to protect the slopes of cofferdams from being scoured and also to reinforce the sides of temporary spillways, etc. Due to insufficient experience, however, it is too early to make final conclusions on the utilization of slag in hydrotechnical structures, but the possibility of utilizng s[illegible] in temporary and light duty construction is already reed upon.
There are 2 schematic drawings.

AVAILABLE: Library of Congress

Card 1/1

SOV-98-58-9-10/21

AUTHOR: El'yasberg, S.Ye. and Leonov, G.I., Engineers

TITLE: The Dissipation of Stream Energy in the Lower Waters of Low Pressure Dams (Gasheniye energii potoka v nizhnem b'yefe nizkonapornykh plotin)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1958, Nr 9, pp 31 - 33 (USSR)

ABSTRACT: The authors recommend the construction of overflow sills with their terminal parts working as console water spillways for low pressure dams, instead of installing expensive reinforced concrete apron wells. It was observed that overflow sills in the old dams successfully protect them from the erosive action of lower waters. There are 3 diagrams and 2 Soviet references.

1. Dams--Design

Card 1/1

14(10) SOV/98-59-2-13/22

AUTHOR: Gvozdev, V.A., Candidate of Technical Sciences, and El'yasberg, S.Ye., Engineer

TITLE: Liquidation of Old Structures in the Body of Earth Dams (Likvidatsiya starykh sooruzheniy v tele zemlyanykh plotin)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 2, p 48-49 (USSR)

ABSTRACT: The authors propose a simple method of liquidating old structures in the shafts of earth dams during their reconstruction. The method consists of erecting an anti-filter diaphragm in line of the existing cut-off wall and pouring the fillers directly into the old opening of the dam. The old foundation parts remain in the body of the dam. This method, tried out during the reconstruction of numerous dams in the Ural region, was found to be much more simple and economical than other methods proposed by various planning organizations.

Card 1/1

EL'YASBERG, S.Ye.

Hydraulic calculations for infiltration water collectors.
Vod. i san.tekh. no.4:23-26 Ap '59. (MIRA 12:5)
(Filters and filtration) (Water-supply engineering)

14(10) SOV/98-59-5-11/21

AUTHOR: El'yasberg, S.Ye., Engineer

TITLE: Filling the Gaps at the Construction of Earth Spillways

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 5, p 38 (USSR)

ABSTRACT: The article is concerned with filling the gaps of two small earth dams built in the Central and North Urals in 1957. In this connection, the name of V.S. Gvozdev is mentioned. The author is of the opinion that the filling of gaps can be carried out in a more liberal way than prescribed by the planning organizations. However, this operation must be carried out in due time with subsequent rising of the water level and depending on what kind of filling material is available. There is 1 Soviet reference.

Card 1/1

EL'YASBERG, S.Ye., inzh.

Construction of cofferdams on silt. Gidr. stroi. 30 no.6:49-50 Je '60. (MIRA 13:7)
(Cofferdams)

[redacted] system components

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye. v. 6, no. 1, 1963, 38-46

[redacted] method consists essentially in representing a given poly- [redacted] analog computer [redacted]

[redacted]

Engineering im. V. I. Ul'yanov (Lenin))

SUBMITTED: March 7, 1962

Card 2/2

EL'YASH, M.L.

New designs of sand blasting equipment. Mash. i neft. obor. no. 11:33-35 '65. (MIRA 18:12)

1. Nauchno-issledovatel'skiy institut po montazhnym i spetsial'nym stroitel'nym rabotam.

EL'YASHBERG, F. Ye.

El'yashberg, F. Ye. "Report on the Conference of Scientific Bases of the Ukrainian Central Science-Research Institute of Orthopedics and Traumatology imeni Professor M. I. Sitenko [Stalino, November 1947]," -- Author indicated in table of contents-- In symposium: Uchen. zapiski (Ukr. tsentr. nauch.-issled. in-t ortopedii i travmatologii im. Sitenko), Khar'kov, 1948, p. 179-88

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

EL'YASHBERG, F. Ye., starshiy nauchnyy sotrudnik

Old traumatic dislocations of the hip and their therapy. Ortop. travm. i protez. no.4:13-16 Jl-Ag '55. (MLRA 8:10)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta ortopedii i travmatologii im. M.I.Sitenko (dir.-zasluzhennyy deyatel' nauki prof. N.P.Novachenko)

(HIP, dislocations,
ther.old dislocc.)
(DISLOCATIONS,
hip, ther.,old dislocc.)

EL'YASHBERG, F.Ye., starshiy nauchnyy sotrudnik

Thirty years of medical educational, and public activities of N.P. Novachenko. Ortop.travm. i protez. 20 no.6:10-15 Je '59. (MIRA 13:3)

(BIOGRAPHIES,
Novachenko, Nikolai P. (Rus))

NOVACHENKO, Nikolay Petrovich, prof.; MIL'YASHBERG, Faina Yevseyevna, starshiy nauchnyy sotrudnik; KORZH, A.A., red.; GITSHTEYN, A.D., tekhn.red.

[Constant traction; method and technic] Postoiannoe vytiazhenie; metodika i tekhnika. Kiev, Gos.med.izd-vo USSR, 1960. 239 p. (MIRA 13:10)

1. Chlen-korrespondent AMN SSSR (for Novachenko).
(EXTREMITIES(ANATOMY)--FRACTURES)

EL'YASHBERG, F. Ye., starshiy nauchnyy sotrudnik

Role of skeletal traction in some operations on the bones and joints. Ortop., travm. i protez. no.12:28-32 '61.
(MIRA 15:2)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta ortopedii i travmatologii im. M. I. Sitenko (dir. - chlen-korrespondent AMN SSSR prof. N. P. Novachenko)

(BONES--SURGERY) (ORTHOPEDIA)

EL'YASHBERG, F.Ye., starshiy nauchnyy sotrudnik; ALEKSANDROVA, I.A., kand. med. nauk

Disability analysis following fractures of the femur and leg bones; based on data of the Medical Expert Commission for Work Capacity Evaluation and of the M.I. Sitenko Ukrainian Institute of Orthopedics and Traumatology. Ortop., travm. i protez. no.9:67-72 '62. (MIRA 17:11)

1. Iz Ukrainskogo instituta ortopedii i travmatologii imeni Sitenko (dir. - chlen-korrespondent AMN SSSR prof. N.P. Novachenko). Adres avtorov: Khar'kov, Pushkinskaya ul., d.80, Institut ortopedii i travmatologii.

EL'YASHBERG, F.Ye., starshiy nauchnyy sotrudnik (Khar'kov)

Review of F.W. Rathke's book "Manual for the hospital orthopedist". Ortop., travm. i protez. 24 no.11:85 N '63.
(MIRA 17:10)

L 18173-63 EPR/EWT(d)/EPF(c)/EWT(l)/EPF(n)-2/EWP(q)/EWT(m)/BDS AFFTC
ASD/SSD/IJP(C) Pc-4/Pr-4/Pu-4 JD/WW/JW/JG/DE

ACCESSION NR: AP3005216 S/0053/63/080/002/0331/0337

AUTHORS: Bresler, M. S.; Kogan, A. V.; Shalyt, S.S.; Elyashberg, G. M. 123

TITLE: All-union conference on low-temperature physics 89

SOURCE: Uspekhi fizicheskikh nauk, v. 80, no. 2, 1963, 331-337

TOPIC TAGS: Low temperature physics, conference

ABSTRACT: The 1962 annual Vsesoyuznoye soveshcheniye po fizike nizkikh temperatur (All-union conference on low-temperature physics) was held in Leningrad from 26 June through 1 July. The introductory address was made by N. Ye. Alekseyevskiy, chairman of Uchenv*y sovet problemy fiziki nizkikh temperatur (Sicence council for low-temperature problems). V. P. Peshkov discussed the basic trends of research and the various results obtained since the time of the preceding conference. B. N. Yesel'son and V. G. Ivanov extended the surface-tension measurements hitherto conducted for weak solutions of He^3 in He^3 to include large He^3 concentrations (10--50%). K. N. Zinov'yeva described investigations of the diagram of state of He^3-He^4 solutions at elevated pressures and at temperatures below 1.5°K. N. G. Bereznyak, I. V. Bogoyavlenskiy, and B. N. Yesel'son directed attention

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primarily to solidification in mixtures containing up to 76% He^3. D. A. Tsakadze reported measurements of the coefficient of mutual friction along vortex lines. Yu. G. Mamaladze presented a theoretical treatment of critical velocities for vortex formation in He II. A. F. Andreev investigated the influence of conduction electrons on certain phenomena on the boundary between a metal and liquid helium. I. P. Ipatova and G. M. Eliashberg presented a theoretical study of the paramagnetic relaxation in liquid He^3. N. V. Zavaritskii described an investigation of the tunnel effect between a tin film and monocrystalline samples of varying crystallographic orientation. Various problems in the synthesis of superconducting alleys possessing extremely high critical magnetic fields (in the hundreds of thousands of Oersteds) and their use in solenoids for generation of strong magnetic fields formed the subjects of several papers (N. E. Alekseyevskiy, et al., B. G. Lazarev, et al., V. R. Karasik, S. Sh. Akhmedov). A. M. Kolchin, N. I. Krivko, and N. M. Reynov measured the surface impedance of the alloy Nb - Zr. N. B. Brandt and N. I. Ginzburg have found a large difference in the properties of the two superconducting modifications of bismuth. B. G. Lazarev, L. S. Lazareva (Kan), and V. I. Makarov continued their previous studies of the pressure dependence of the critical temperature for tin and thallium. Measurements of the pressure dependence of the critical temperature for Nb_3Sn were reported by

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B. G. Lazarev, L. S. Lazareva (Kan), O. N. Ovcharenko, and A. A. Matsakov. The quenching of superconductivity by current and the distribution of phases in the intermediate state have been investigated by N. E. Alekseyevskiy and E. A. Troynar by the ferromagnetic powder technique. A study has also been undertaken of the kinetics of the quenching of superconductivity by current (A. P. Smirnov, A. V. Rumyantseva, and V. N. Totubalin). A theoretical paper by I. A. Privorotskiy was devoted to the absence of an isotope effect for ruthenium.2) A paper by M. S. Khaykin and colleagues - R. T. Mina and V. S. Ekel'man - dealt with a cyclotron resonance of tin, lead2) and bismuth. V. F. Gantmakher found a new dimensional effect in thin specimens of tin while making measurements of the surface impedance of the samples at frequencies of 1 - 5 Mc.

[For Complete Set See: Bresler, M. S. I
All-union conference on low-temperature physics]III

Set 1/2, Card 3/3

L 18173-63 EPR/EWT(d)/EPF(c)/EWT(1)/EPF(n)-2/EWP(q)/EWT(m)/BDS AFFTC
ASD/SSD/IJP(C) Ps-4/Pr-4/Pu-4 JD/WW/JW/JG/DE
ACCESSION NR: AP3005216 S/0053/63/080/002/0331/0337 157

AUTHORS: Bresler, M. S.; Kogan, A. V.; Shalyt, S. S.; Elyashberg, G. M. 91

TITLE: All-union conference on low-temperature physics 21

SOURCE: Uspekhi fizicheskikh nauk, v. 80, no. 2, 1963, 331-337

TOPIC TAGS: Low temperature physics, conference

ABSTRACT: E. P Vol'skiy measured the quantum oscillations in the quasistatic conductivity of bismuth in a magnetic field at frequencies of 3 - 5 Mc. Papers by V. P. Naberezhnykh, A. A. Galkin and V. L. Mel'nik, and by P. A. Bezugly, A. A. Galkin and A. I. Pushkin dealt with investigations of cyclotron resonance and magnetoacoustic resonance in the same samples of aluminum, which made possible the direct comparison of results and simplified the reconstruction of the topology of the Fermi surface. N. E. Alekseyevskiy reported on galvanomagnetic investigations of the transition metals (N. E. Alekseyevskiy, V. Egorov, B. N. Kazak, and G. E. Karstens) in strong magnetic

Set 2/2, Card 1/5

fields (constant to 35 kOe and pulsed to 200 kOe). N. E. Alekseyevskiy also noted the applicability of galvanomagnetic measurements to the study of the Fermi surfaces of the transition metals, since the purity achieved in specimens of these metals is as yet far from that required by such methods as cyclotron resonance. N. E. Alekseyevskiy and Yu. P. Gaydukov have measured the anisotropy of the electrical resistance and of the Hall effect in cadmium, zinc and thallium; open Fermi surfaces were found for all of these metals. V. G. Volotskaya and N. Ya. Fogel' have investigated galvanomagnetic phenomena in very pure aluminum (resistivity ratio $300^{o}/4^{o}$ 2500-2000 as compared with previous values not exceeding 2000). B. N. Aleksandrov reported on a study of dimensional effects in a longitudinal magnetic field for high-purity tin, zinc, and aluminum. E. A. Kaner described a theory which he has developed for acoustic cyclotron resonance. N. B. Brandt, N. N. Stupochenko and T. F. Volgolenko investigated the fine structure of the quantum oscillations in the magnetic susceptibility of bismuth in various crystalline directions at ultra-low temperatures. The amplifications of ultrasound in semi-metals was studied by R. F. Kazarinov and V. G. Skobov. L. A. Fal'kovskiy and A. A. Abrikosov have computed the energy spectrum the "bad" metals of the fifth group (bismuth, arsenic, antimony) by group theory methods, utilizing qualitative ideas concerning the

of cuprous oxide. Yu. N. Obraztsov developed a theory for thermomagnetic effects in semiconductors in quantized magnetic fields. A paper by I. I. Boyko, E. I. Rashba and V. I. Sheka analyzed the conditions leading to the possible observation of a new resonance effect in semiconductors, due to spin-orbit coupling. M. I. Kaganov and I. M. Lifshits computed the absorption of light in a metal whose Fermi surfaces contain degenerate points (evidently this is characteristic only of graphite). The Shubnikov-de Haas effect in $A^{III} B^{IV}$ compounds of electronic type was investigated in pulsed fields of up to 400 kOe by Kh. I. Amirkhanov, R. I. Bashirov, Yu. E. Zakiev, and A. Yu. Mollayev. O. V. Yemel'yanenko and D. N. Nasledov studied the electrical properties of gallium arsenide having a carrier concentration of $5 \times 10^{15} - 5 \times 10^{16}$ cm^{-3}, but with varying total impurity concentrations. N. E. Alekseyevskiy, Fam Zui Khien, V. G. Shapiro and V. S. Shpinel' have measured the resonance absorption probability for 28.3 keV gamma-quanta in slices of crystalline tin cut along various crystal planes. Resonance absorption of 35 keV gamma-quanta in Te^{125} formed the subject of a paper by V. V. Sklyarevskiy, B. N. Samoylov, E. P. Stepanov, I. I. Lukashevich, and R. A. Manakhov. Yu. M. Kagan delivered his paper "Toward a Theory for the Redward Thermal Displacement of the "Mossbauer Line". Papers "Assymetry of -radiation in Certain Nuclei, Polarized in an Alloy with Iron" and "Nuclear Specific Heats

structure of the bismuth type of lattice and the nature of the transition from "good" metals to dielectrics under deformation. R. G. Arkhipov derived a criterion for the occurrence of metals with small electron concentrations. M. I. Kaganov and V. G. Peschanskiy analyzed various mechanisms for the absorption of ultrasound in metals. V. P. Dobrego and S. M. Ryvkin studied conductivity in germanium alloyed with Group V or III impurities and having carrier concentrations of 10^{15} - 10^{16} cm^{-3}, in the presence of compensating impurities. S. M. Ryvkin, V. P. Dobrego, B. M. Konovalenko, and I. D. Yaroshetskiy have observed the appearance of the so-called induced impurity breakdown in germanium samples of the same degree of purity, but fully compensated. M. I. Kaganov proposed that attempts be made to observe additional exciton waves in a crystal due to the presence of space dispersion, using the deceleration of fast particles in a dielectric. L. S. Kukushkin spoke on his theory of non-radiative transition processes in molecular crystals. A paper by A. R. Kessel' and U. Kh. Kopvillem presented a calculation of the sensitivity of a quantum phonon counter which utilizes atoms in the ground state rather than in an excited state, so as to reduce the noise level. A paper was also presented by A. A. Kaplyanskiy on the influence of uniaxial deformations upon the optical spectra of crystals of the type of Ca F_2, Li F, etc., containing various impurities, as well as upon the exciton spectrum

L 18173-63

ACCESSION NR: AP3005216

13

of Certain Elements Alloyed with Iron" were delivered by A. V. Kogan, V. D. Kul'kov, L. P. Nikitin, N. M. Reynov, M. F. Stel-makh, and M. Shott. "Dynamic Polarization of Protons in Lanthanum-Magnesium Double Nitrate" was reported by V. I. Lushchikov, A. A. Manenkov, and Yu. V. Taran. A large number of papers concerned with the investigation of the properties of ferro- and antiferromagnetic substances were presented at the conference. A special session was devoted to techniques for the production of low temperatures and to methods for making various low temperature measurements. A number of papers dealt with problems concerning the mechanical properties and optics of crystals at low temperatures, and concerning techniques for producing high pressures and strong pulsed magnetic fields for low temperature research. On the last day of the conference, summaries of the papers presented at the various sectional sessions were presented by their respective chairmen. As the conference chairman, N. E. Alekseyevskiy, remarked in conclusion, only the practice of combining plenary sessions with current sessions of individual sections can, in the opinion of the Scientific Council for the Problems, make it possible to "boil down" to reasonable dimensions the annually increasing flood of papers on low temperature physics.

ASSOCIATION: NONE

SUBMITTED: 00 DATE ACQ: 15 Aug 63 ENCL: 00

SUB CODE: PH NO REF SOV: 000 OTHER: 000

For Complete Set See: Bresler, M. S. - All-union conference on low-temperature physics

Set 2/2, Card 5/5

L 00772-67 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/HW

ACC NR: AP6022883 SOURCE CODE: UR/0121/66/000/004/0012/0016

28
B

AUTHOR: El'yasberg, M. Ye.

ORG: None

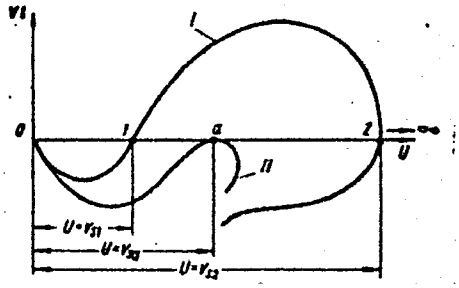
TITLE: Absolute vibration stability with respect to cutting speed in metal-cutting machine tools

16

SOURCE: Stanki i instrument, no. 4, 1966, 12-16

TOPIC TAGS: machine vibration, metal cutting machine tool

ABSTRACT: Stability regions are set up with respect to the cutting speed v_s for a metal--cutting machine tool considered as a self--oscillating system. In general, a system with given parameters (except v_s) with two degrees of freedom has a first stability region 0-1 (see figure), a region of instability 1-2 and a second stability region 2-∞. This is taken as the basic system with one degree of freedom in the direction x of the force of friction Q and the other



Card 1/2 UDC: 621.9-752.001.5

L 00772-67
ACC NR: AP6022883 O

degree of freedom in the direction y of the cutting force P. The region of instability is reduced by increasing the damping coefficients d, and when the damping coefficient reaches $d_x=d_{xa}$, this region of instability disappears. In this case the boundary curve II is tangent to axis U at point a which determines the stability boundary for the system, i. e. absolute stability with respect to cutting speed. Consideration is also given to the boundary curve which separates the stability region with respect to two parameters--cutting speed and the width of the layer which is removed. Formulas are derived for the relationship between the parameters of the system under conditions of absolute stability with respect to cutting speed. A physical interpretation of these conditions is given and practical application of the proposed method for calculating absolute stability of complex vibrational systems is illustrated. Orig. art. has: 4 figures, 22 formulas.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 005

awm

Card 2/2

EL'YASHEV, K.I.

EL'YASHEV, K.I. (Berezovsk)

Dynamics of silicosis in miners. Gig.truda i prof.zab. 1 no.3: 7-11 My-Je '57. (MIRA 11:1)

1. Berezovskaya opytnaya stantsiya Instituta gigiyeny truda i profzabolevaniy AMN SSSR.
(LUNGS--DUST DISEASES)
(GOLD MINES AND MINING--HYGIENIC ASPECTS)

EL'YASHEV, L.

STEPANOVA, V.; EL'YASHEV, L.

Reports of supply organizations. Bukhg.uchet 15 no.10:25-27 O '56. (MLRA 9:11)

(Accounting)

EL'YASHEV, L.

STEPANOVA, V.; EL'YASHEV, L.

Concerning the unprofitableness of producing consumers' goods at heavy-industry enterprises. Fin.SSSR 17 no.11:67-70 N '56.
(Russia--Manufactures) (MLRA 9:12)

MAKSIMOV, G.; OVODOV, G.; ML'YASHEV, L.; SLAVNYY, I.D., otv.red.; ROSHCHINA, L., red.izd-va; LEBEDEV, A., tekhn.red.

[The new price scale] Novyi masshtab tsen. Moskva, Gosfinizdat, 1960. 34 p. (MIRA 14:2)
(Price regulation)

EL'YASHEV, L.

Prices for the products of heavy industry. Fin. SSSR 21 no.8:22-30 Ag '60. (MIRA 13:8)
(Prices)

EL'YASHEV, L.

Shortcoming in planning the number of engineers and technicians.
Fin. SSSR 23 no.3:41-46 Mr '62. (MIRA 15:3)
(Technicians in industry)

ARALOV, V.; EL'YASHEV, L.

Improving the quality of production is the necessary condition for increasing profit. Fin. SSSR 37 no.1:35-39 Ja '63. (MIRA 16:2)

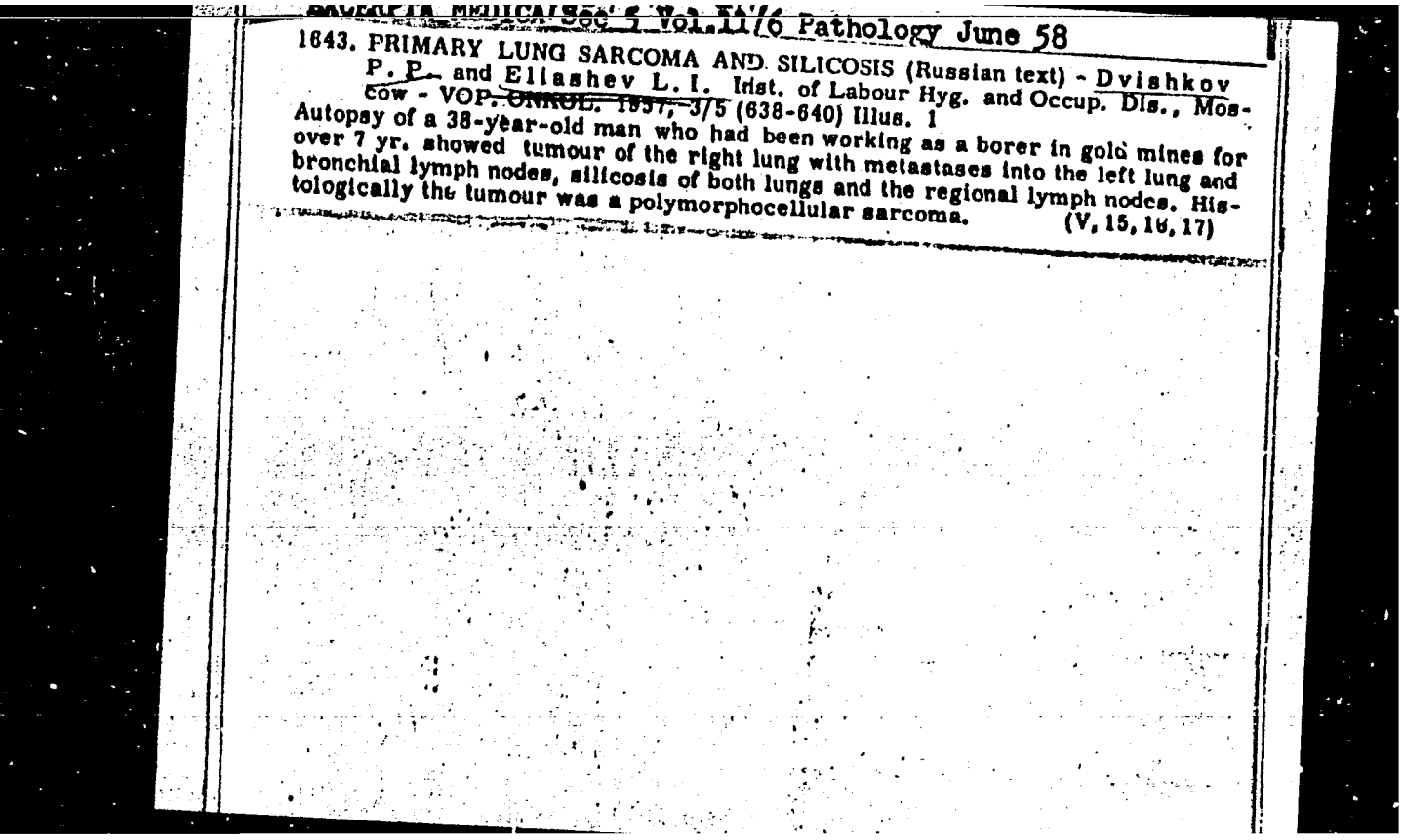
(Quality control)

EL'YASHEV, L.I.

DVIZHKOV, P.P.; YEVGENOVA, M.V.; MOLOKANOV, K.P.; MOROZOV, A.L.; MARTSINKOVSKIY, B.I. [deceased]; EL'YASHEV, L.I. (Moskva)

Classification of pneumoconiosis. Gig.truda i prof.zab. 1 no.3: 3-7 My-Je '57. (MIRA 11:1)

1. Institut gigiyeny truda i profzabolevaniy AMN SSSR.
(LUNGS--DUST DISEASES)



[illegible] Vol. 11/6 Pathology June 58

1643. PRIMARY LUNG SARCOMA AND SILICOSIS (Russian text) - Dvishkov P. P. and Eliashev L. I. Inst. of Labour Hyg. and Occup. Dis., Moscow - VOP. ONKOL. 1957, 3/5 (638-640) Illus. 1

Autopsy of a 38-year-old man who had been working as a borer in gold mines for over 7 yr. showed tumour of the right lung with metastases into the left lung and bronchial lymph nodes, silicosis of both lungs and the regional lymph nodes. Histologically the tumour was a polymorphocellular sarcoma. (V, 15, 16, 17)

EL'YASHEV, L.I., kand.med.nauk

Late silicosis. Bor'ba s sil. 4:29-34 '59. (MIRA 12:11)

1. Institut gigiyeny truda i profzabolevaniy AMN SSSR.
(LUNGS--DUST DISEASES)

EL'YASHEV, L.I. (Berezovsk)

Pneumokoniosis in bauxite miners. Gig. truda i prof. zab. 4 no.4: 28-32 Ap '60. (MIRA 15:4)

1. Opytnaya protivosilikoznaya stantsiya.
(MINING ENGINEERING—HYGIENIC ASPECTS)
(LUNGS—DUST DISEASES)

ZAYTSHEV, L.I.

X-ray observations of the results of collapse therapy in silico-tuberculosis. Ter'ba s sil. 6:299-302 '64 (MIRA 18:4)

1. Institut gigiyeny truda i professional'nykh zabolevaniy AMN SSSR i Institut profilaktiki pnevmokoniozov.

SOV/68-59-7-21/33

AUTHORS: Starkov, I.D., El'yashev, M.I. and Kalita, Z.S.

TITLE: A New Method of Denitration of Acid

PERIODICAL: Koks i khimiya, 1959, Nr 7, pp 53-54 (USSR)

ABSTRACT: A method of denitrating sulphuric acid before it is used for the production of ammonia sulphate is proposed. It consists of an addition to the acid of 0.1 - 0.3% of heavy benzole containing a considerable proportion of unsaturated compounds. The mixture is intensively stirred for one hour by blowing air. A complete denitration of the acid takes place. The method was tested under industrial conditions with satisfactory results.

ASSOCIATION: Gorlovskiy koksokhimicheskiy zavod (Gorlovskiy Coking Works)

Card 1/1

EL'YASHEVA, M. A. Cand. Tech. Sci.

Dissertation: "Investigation of a Hydraulic Pulsation Type Machine for Fatigue Testing." Moscow Order of the Labor Red Banner Higher Technical School imeni N. E. Bauman, 26 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

EL'YASHEVA, M. A.

166T72

USSR/Metals - Testing Equipment Jul 50

"Wire Tensometers for Measuring Plastic Deformations," M. A. El'yasheva, V. P. Shchegolev

"Zavod Lab" Vol XVI, No 7, pp 890-891

Outlines possibility for measuring greater relative deformations with wire tensometers. Discusses results of experiments for using various materials for wires. Wires most suitable for determination of considerable plastic deformations are those made of nichrome and annealed constantan. Best results shown by gauges made of annealed constantan wire

166T72

USSR/Metals - Testing Equipment (Contd) Jul 50

of 0.03 mm diameter. Concludes range of deformations measured with wire tensometers may be increased to 5-6%.

166T72

EL'YASHEVA, M.A.

ANTIPOV, K.F., inzhener; BALAKSHIN, B.S., doktor tekhnicheskikh nauk, professor; BARYLOV, G.I., inzhener; BEYZEL'MAN, R.D., inzhener; BERDICHEVSKIY, Ya.G., inzhener; BOBKOV, A.A., inzhener, KALININ, M.A., kandidat tekhnicheskikh nauk; KOVAN, V.M., doktor tekhnicheskikh nauk, professor; KORSAKOV, V.S., doktor tekhnicheskikh nauk; KOSILOVA, A.G., kandidat tekhnicheskikh nauk; KUDRYAVTSEV, N.T., doktor khimicheskikh nauk, professor; KURYSHEVA, Ye.S., inzhener; LAKHTIN, Yu.M., doktor tekhnicheskikh nauk, professor; MAYERMAN, M.S., inzhener; NOVIKOV, M.P., kandidat tekhnicheskikh nauk; PARIYSKIY, M.S., inzhener; PEREPONOV, M.N., inzhener; POPILOV, L.Ya., inzhener; POPOV, V.A., kandidat tekhnicheskikh nauk; SAVERIN, M.M., doktor tekhnicheskikh nauk, professor; SASOV, V.V., kandidat tekhnicheskikh nauk; SATEL', E.A., doktor tekhnicheskikh nauk, professor; SOKOLOVSKIY, A.P., doktor tekhnicheskikh nauk, professor [deceased]; STANKEVICH, V.G., inzhener; FRUMIN, Yu.L., inzhener; KHRAMOY, M.I., inzhener; TSEYTLIN, L.B., inzhener; SHUKHOV, Yu.V., kandidat tekhnicheskikh nauk; BABKIN, S.I., kandidat tekhnicheskikh nauk; VOLKOV, S.I., kandiat tekhnicheskikh nauk; GORODETSKIY, I.Ye., doktor tekhnicheskikh nauk, professor; GOROSHKIN, A.K., inzhener; DOSCHATOV, V.V., kandidat tekhnicheskikh nauk; ZAMAIN, V.S., inzhener; ISAYEV, A.I., doktor tekhnicheskikh nauk, professor; KEDROV, S.M., kandidat tekhnicheskikh nauk; MALOV, A.N., kandidat tekhnicheskikh nauk; MARDANYAN, M.Ye., inzhener; PANCHENKO, K.P., kandidat tekhnicheskikh nauk; SEKRETEV, D.M., inzhener; STAYEV, K.P., kandidat tekhnicheskikh nauk; SYROVATCHENKO, P.V., inzhener; TAURIT, G.B., inzhener; EL'YASHEVA, M.A., kandidat tekhnicheskikh nauk;

(Continued on next card)

ANTIPOV, K.F. ---(continued) Card 2.
GRANOVSKIY, G.I., redaktor; [illegible], redaktor; [illegible], redaktor; CHARNKO, D.V., redaktor; [illegible] [deceased]; SOKOLOVA, T.F., [illegible]

[Machine builder's manual] Spr[illegible] v dvukh tomakh, red.sovet V.M.[illegible] i dr. Moskva, Gos.nauchno-tekh[illegible] Vol. 1. (Pod red. A.G.Kosilov[illegible] Malova) 195[illegible]. 584 p. (MLRA [illegible])
(Machinery industry)

EL'YASHEVA, M.A.

135-5-7/14

SUBJECT: USSR/Welding.

AUTHORS: Orlov, B.D., Candidate of Technical Sciences, Chuloshnikov, P.L., Engineer, and El'yasheva, M.A., Candidate of Technical Sciences.

TITLE: Strength of Spot-Welded and Roller-Welded Joints in Titanium "BT1A". (Prochnost' soyedineniy titana "BT1A", vypolnennykh tochechnoy i rolikovoy svarkoy).

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, # 5, pp 19-22 (USSR)

ABSTRACT: The investigation described had the purpose of comparing the properties of titanium "BT1A" with the properties of steel "1X18H9-H" for which titanium may be a replacement giving an economy in weight. Both metals were tested under static load, under cyclic fatigue load, and under pressure load. The technology of specimen preparation and of testing is given in detail.

The following conclusions have been made:

1. The static strength of spot-welded and roller welded joints of titanium "BT1A" is not below the static strength of those made of steel "1X18H9-H", despite the strength of the basic metal "BT1A" being 25% below the strength of the basic metal

Card 1/2

EL'YASHEVA, M.A.

135-5-8/14

SUBJECT: USSR/Welding.

AUTHORS: El'yasheva, M.A., Candidate of Technical Sciences, and Tret'yakov, F.Ye., Candidate of Technical Sciences.

TITLE: Strength of Titanium "BT1Д" and Its Welded Joints at Different Temperatures. (Prochnost' titana BT1Д i ego svarnykh soyedineniy pri razlichnykh temperaturakh).

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, # 5, pp 22-24 (USSR).

ABSTRACT: The article gives data on the strength of technical titanium "BT1Д" obtained in experiments with mechanical arc welding in argon, in butt joints welded without melting electrodes, and in lap-spot joints. Sheet titanium of 1.4 mm thickness was taken as base metal containing 0.06 % C and 0.12% Al, traces of iron and silicon, 0.013 % H_2, and 0.13 O_2. The technology of the tests is given in detail. Recrystallization processes and the nature of failures at different temperatures were studied. A difference in the behaviour of weld metal and base metal was observed, as for instance; at temperatures above 100°C failures occur in the base metal only; with rising temperature (from 0° and higher) the strength of spot welds decreases in lesser degree than the

Card 1/3

TITLE: Strength of Titanium "BT1Д " and Its Welded Joints at Different Temperatures. (Prochnost' titana BT1Д i ego svarnykh soyedineniy pri razlichnykh temperaturakh).

strength of the base metal; with dropping temperatures (from 0° to -196°C) the strength of welds decreases, whereas the strength of base metal increases.

In general, the results obtained demonstrated that the welds possessed a sufficiently high static strength as compared to the base metal at normal and at higher temperatures. The butt welds had the same static strength as the base metal. The spot welds had a lower strength at normal temperatures than the base metal. With rising temperatures this difference decreased, but at temperatures dropping below zero it increased and the strength of spot welds abruptly decreased in comparison with the base metal.

The data obtained by L.N. Sokolov, V.P. Elyutin, and V.I. Yaleskiy ("Izvestiya Akademii Nauk SSSR" #3, 1954) are mentioned as being in accordance with the results of subject investigation.

The article contains 3 diagrams and 3 photographs (micro- and macro-structure).

135-5-8/14

TITLE: Strength of Titanium "BT1Д" and Its Welded Joints at Different Temperatures. (Prochnost' titana BT1Д i ego svarnykh soyedineniy pri razlichnykh temperaturakh).

ASSOCIATION: Not stated.

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress.

Card 3/3

ELIYASHEVA, M.A.

PHASE I BOOK EXPLOITATION SOV/1538

Moscow. Dom nauchno-tekhnicheskoy propagandy im. F.E. Dzerzhinskogo

Sovremennyye splavy i ikh termicheskaya obrabotka (Contemporary Alloys and Their Heat Treatment) Moscow, Mashgiz, 1958. 329 p. 12,000 copies printed.

Additional Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR.

Ed. (Title page): Yu. A. Geller, Doctor of Technical Sciences; Ed. (Inside book): V.V. Rzhevinskiy, Engineer; Tech. Ed.: B.I. Model'; Managing Ed. for Literature on Metal Working and Tool Making: R.D. Beyzel'man, Engineer.

PURPOSE: The book is intended for engineering and technical personnel of heat-treatment shops and test laboratories of machine-building plants.

COVERAGE: This collection of 26 articles, compiled by 33 authors, aims to acquaint the reader with modern practice in the heat treatment of steels. The authors are primarily concerned with the development of various types of structural, tool, and heat-resistant steels and with the use of their alloying elements. Materials-handling equipment is described at some length. The treatment of alloys, particularly those of titanium, also comes within the scope of the collection. The book is thoroughly diagrammed, and a good deal of the material is shown in graphical form. Among the problems dealt with are the minimization of deformations, the introduction of the automatic control of heat-treating equipment, together with fully mechanized tool manufacture, and the optimum proportions of different alloying elements. There are numerous tables and drawings. Bibliographic listings placed at the end of chapters are predominantly Soviet. The articles comprising this collection are reports delivered at a conference held in the Scientific and Technical Propaganda House imeni F.E. Dzerzhinskiy in Moscow.

Contemporary Alloys and Their Heat-Treatment SOV/1538

AVAILABLE: Library of Congress

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Card 6/6

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00041211(

EL'YASHEVA, M.A.

32-6-32/54

AUTHOR: EL'YASHEVA,M.A., POLITOVA, A.I.

TITLE: The Automatic Arrangement of a Hydraulic Machine for Investigations with Repeated Static Stresses. (Avtomaticheskoye ustroystvo k gidravlicheskoy mashine dlya ispytaniya povtorno-staticheskimi nagruzkami, Russian)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol 23, Nr 6, pp 741-742 (U.S.S.R.)

ABSTRACT: For the purpose of investigating the static resistibility of materials hydraulic tensile testing machines (produced by the firm of Losenhausen as well as of the Russian type MUG) of 15 t each were used. They consist of a distributor box with 2 manometers (with adjustable contacts), a directioning device, a selenoid with lever transmission leading to the exhaust valve and a panel with the electric equipment. The box serves for the distribution of oil either to the manometer (in the case of investigations with repeated static stresses) or to the pendulum dynamometer (for static investigations). The distributor box together with the pendulum dynamometer is connected with the tube system leading to the cylinder. This system is used for measuring force. Stresses and loads are controlled by means of one of the two manometers, which are brought about automatically by means of two contacts

Card 1/2

32-6-32/54

The Automatic Arrangement of a Hydraulic Machine for Investigations with Repeated Static Stresses.

fitted to the manometers. If normal stress is exceeded, an electric bell rings and the pump motor is disconnected. The number of cycles performed before the material is destroyed is fixed by means of an electric counter.

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress

Card 2/2

MALOV, A.N., kand.tekhn.nauk; BABKIN, S.I., kand.tekhn.nauk; VOLKOV, S.I., kand.tekhn.nauk; GORODETSKIY, I.Ye., prof., doktor tekhn.nauk; GOROSHKIN, A.K., inzh.; DOSCHATOV, V.V., kand.tekhn.nauk; ZAMALIN, V.S., inzh.; ISAYEV, A.I., prof., doktor tekhn.nauk; KEDROV, S.M., kand.tekhn.nauk; MARDANYAN, M.Ye., inzh.; PANCHENKO, K.P., kand. tekhn.nauk; SEKRETEV, L.M., inzh.; STAYEV, K.P., kand.tekhn.nauk; SYROVATCHENKO, P.V., inzh.; TAURIT, G.E., inzh.; KL'YASHEVA, M.A., kand.tekhn.nauk; KOVAN, V.M., prof., doktor tekhn.nauk, glavnyy red.; MARKUS, M.Ye., inzh., red. [deceased]; SOKOLOVA, T.F., tekhn.red.

[Manual for mechanical engineers; in two volumes] Spravochnik tekhnologa mashinostroitelia; v dvukh tomakh. Glav.red. V.M.Kovan. Chleny red.soveta B.S.Balakshin i dr. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. Vol.2. Pod red. A.N.Malova. 1959. 584 p. (MIRA 12:11)

(Mechanical engineering)

25(1) SOV/135-59-3-11/24

AUTHOR: El'yasheva, M.A., Candidate of Technical Sciences

TITLE: The Effect of the Spot Spacing on the Fatigue Strength of Spot Weld Joints (Vliyaniye shaga na ustalostnuyu prochnost' tochechnykh soyedineniy)

PERIODICAL: Svarochnoye proizvodstvo, 1959, Nr 3, pp 22-23 (USSR)

ABSTRACT: The results of an experimental investigation of the effect of spot weld spacing in spot weld joints are given. Contrary to the case of the static strength, the fatigue strength limit of sheet metal in a spot weld joint decreases with an increasing space between the spot welds, and the loading upon one single spot increases. The fatigue strength of a spot weld joint as a whole decreases when the spot spacing increases. There are 3 graphs and 1 table.

ASSOCIATION: NIAT

Card 1/1

EL'YASHEVA, M.A.

PHASE I BOOK EXPLOITATION SOV/4508

Akademiya nauk SSSR. Institut metallurgii

Titan i yego splavy, vyp. 3: Metallovedeniye titana (Titanium and Its Alloys, No. 3: Metal Science of Titanium) Moscow, Izd-vo AN SSSR, 1960. 161 p. Errata slip inserted. 2,700 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A.A. Baykova.

Resp. Ed.: N.V. Ageyev, Corresponding Member, Academy of Sciences USSR; Ed. of Publishing House: N.L. Podgayetskiy; Tech. Ed.: Ye. V. Makuni.

PURPOSE: This collection of articles is intended for scientific research workers and metallurgical engineers.

COVERAGE: The articles summarize results of experimental studies of titanium-base alloys. The microstructure and mechanical properties of titanium-base alloys containing aluminum, chromium or other metals are analyzed along with the effect of oxygen, hydrogen and heat treatment on alloy structure and properties. The tendency of titanium alloys to embrittlement as a result of strain aging is emphasized, and the nitriding of titanium, carried out to increase the surface strength and wear resistance of titanium alloys, is described. Transformations occurring in commercial titanium under conditions of electric heating are examined. Attempts to develop titanium-base alloys capable of withstanding temperatures over 400°C are discussed as are problems of titanium-powder metallurgy and weldability of certain titanium-base alloys. No personalities are mentioned. Most of the articles have bibliographic references, the majority of which are Soviet.

TABLE OF CONTENTS:

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82286

S/135/60/000/007/002/014
A006/A002

18.7200

AUTHORS: Silin, I.I., Kuznetsov, V.A., Engineers, El'yasheva, M.A., Candidate of Technical Sciences

TITLE: The Strength of Weld Joints in Aluminum Alloys Produced by Ultrasonic Welding Process

PERIODICAL: Svarochnoye proizvodstvo, 1960, No. 7, pp. 5-8

TEXT: Information is given on results of investigations into the strength of weld joints produced by ultrasonic welding and subjected to static and vibration loads and to the effect of temperature. Specimens made of 0.8 mm thick "АМг3М" (AMg3M) and 1.2 mm thick "Д 16М" (D16M) alloys were subjected to shearing and breaking tests at 20, 100, 150, 200 and 250°C. The specimens consisted of two plates joined by overlap welding on a laboratory installation equipped with a "УЗГ-10" (UZG-10) generator and a "ПСМ-7" (PSM-7) transformer. A conic steel tool with a removable spheric "ШХ15" (ShKh15) steel tip was used. The dimensions of the tool provided for a triple augmentation of the oscillation amplitude during the transmission from the transformer to the work piece. The amplitude was measured by a contactless vibrometer. The welding time was controlled by the "ПВ-52"

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The Strength of Weld Joints in Aluminum Alloys Produced by Ultrasonic Welding Process

(PV-52) electric chronoscope. The frequency of oscillations remained constant during all the experiments; it was checked by a "3Г-11" (ZG-11) sound generator and a "30-" (E0-7) cathode oscillograph. Welding parameters are given in a table. Specimens for comparative tests were welded on a standard spot welding machine using the conventional technology. A comparison of results leads to the following conclusions: The static strength of joints in D16M and AMg3M alloys produced by ultrasonic welding and subjected to shearing and breaking tests at room and higher temperatures is not below the strength of joints obtained by resistance welding. A raise of the temperature to 150°C reduces the strength to 20-25%; and to 40-45% at 250°C. The fatigue limit of overlap joints produced by ultrasonic welding is similar to that of analogous joints obtained by contact welding. Vibration strength of ultrasonic weld joints is extremely high and approaches that of the base metal. It is by 30% higher than the vibration strength of resistance-welded joints. In static tests the stability of strength of ultrasonic welds is lower than that of resistance weld joints. The dispersion

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The Strength of Weld Joints in Aluminum Alloys Produced by Ultrasonic Welding Process

of results obtained from vibration tests is practically similar for both cases. There are 5 figures and 5 references: 3 Soviet and 2 English.

ASSOCIATION: Institut metallurgii imeni A.A. Baykova AN SSSR (Institute of Metallurgy imeni A.A. Baykov, AS USSR) Kuznetsov, V.A.; NIAT, El'yasheva, M.A.

Card 3/3

FRIDMAN, Yakov Borisovich; ZILOVA, Tat'yana Kirillovna; DEMINA, Nina Ivanovna; BOKYLEV, A.V., doktor tekhn. nauk, retsenzent; EL'YASHEVA, M.A., kand. tekhn. nauk, red.; BURAKOVA, O.N., red.; NOVIK, A.Ya., tekhn. red.

[Using the method of rolled-on gratings in investigating plastic deformation and breakdown] Izuchenie plasticheskoi deformatsii i razrusheniia metodom nakatannykh setok. Moskva, Gos. nauchno-tekhn. izd-vo Oborongiz, 1962. 187 p. (MIRA 15:4)

(Deformations (Mechanics)) (Plasticity)

ELYASHEVA, M.A.

35-R
45

PHASE I BOOK EXPLOITATION SOV/6025

Soveshchaniye po ustalosti metallov. 2nd., Moscow, 1960.

Tsiklicheskaya prochnost' metallov; materialy vtorogo soveshchaniya po ustalosti metallov, 24 - 27 maya 1960 g. (Cyclic Metal Strength; Materials of the Second Conference on the Fatigue of Metals, held May 24 - 27, 1960) Moscow, Izd-vo AN SSSR, 1962. 338 p. Errata slip inserted. 2000 copies printed.

Resp. Ed.: I. A. Oding, Corresponding Member of the Academy of Sciences of the USSR; Ed. of Publishing House: A. M. Chernov; Tech. Ed.: A. P. Guseva.

PURPOSE: This collection of articles is intended for scientific research workers and metallurgists.

COVERAGE: The collection contains papers presented and discussed at the second conference on fatigue of metals, which was held at the Institute of Metallurgy in May 1960. These papers deal with the nature of fatigue fracture, the mechanism of formation

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Cyclic Metal Strength (Cont.) SOV/6025

and growth of fatigue cracks, the role of plastic deformation in fatigue fracture, an accelerated method of determining fatigue strength, the plotting of fatigue diagrams, and various fatigue test methods. New data are presented on the sensitivity of high-strength steel to stress concentration, the effect of stress concentration on the criterion of fatigue failure, the effect of the size factor on the strength of metal under cyclic loads, and results of endurance tests of various machine parts. Problems connected with cyclic metal toughness, internal friction, and the effect of corrosion media and temperature on the fatigue strength of metals are also discussed. No personalities are mentioned. Each article is accompanied by references, mostly Soviet.

TABLE OF CONTENTS:

NATURE OF FATIGUE FRACTURE

S/137/62/000/012/051/085
A006/A101

AUTHOR: El'yasheva, M. A.

TITLE: Investigating the possibility of using the high-speed method for determining the fatigue limit under asymmetrical cyclic loading conditions and different technical processings

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 12, 1962, 103, abstract 121635 (In collection: "Tsiklich. prochnost' metallov", Moscow, AN SSSR, 1962, 123 - 133)

TEXT: The author describes results obtained in the checking of an accelerated method proposed by V. S. Ivanova for the purpose of determining σ_w; values for the critical number of cycles, N_{cr}, are given for different materials, during changes in the conditions of the surface layer, the welding method and other technical factors in symmetrical and asymmetrical loading cycles. The data presented are of a statistical nature and based on the systematization and processing of fatigue curves, obtained during investigations of the effect of techniques upon the cyclic strength of Al, Mg and Ti-alloy specimens, alloyed

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Investigating the possibility of...

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A006/A101

steels and other materials. The author shows the satisfactory agreement of N_{cr} in the comparison of specimens subjected to different technical treatment (for the same material). N_{cr} values for alloys do not agree in particular cases, with the critical number of cycles for pure metals; this is explained by the effect of alloying elements upon physical constants, such as specific heat capacity, melting point, and E. The asymmetry of the cycles under otherwise equal conditions, has no noticeable effect on the magnitude of N_{cr}. It is concluded that the accelerated method of determining the cyclic strength is promising in the solution of various technical problems. However, its wide use is limited by the lack of checked fatigue criteria for the majority alloys, and because concrete data are not available on the limitations and the permissible application fields of the method (scale factor, test conditions, etc.). The author points to the necessity of continuing research in this direction by special investigations and the statistical processing of the experimental data available.

L. Gordiyenko

[Abstracter's note: Complete translation]

Card 2/2

S/124/63/000/003/064/065
D234/D308

AUTHOR: El'yasheva, M. A.

TITLE: Investigation of the possibility of application of an accelerated method of determining the fatigue limit in the conditions of asymmetric fatigue cycle, with different technological treatments

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 3, 1963, 71, abstract 3V507 (In collection: Taiklich. prochnost' metallov. M., AN SSSR, 1962, 123-133)

TEXT: The author gives fatigue curves of specimens made of aluminum, magnesium and titanium alloys and alloyed steels subject to bending and tension-compression symmetric and asymmetric cycles. The specimens had different states of the surface layer. The method of welding and other technological factors were varied. The data are used for checking the accelerated method proposed by V. S. Ivanova (Izv. AN SSSR, Otd. tekhn. n., 1960, no. 1; Zavodskaya laboratoriya, 1960, v. 25, no. 5, 593-598 - RZhMekh, 1961, 1V501) on the

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Investigation of the ... S/124/63/000/003/064/065
D234/D308

basis of the hypothesis of energetic similarity of fatigue destruction and melting of metals. The values of the cyclical constant of destruction α_0 were taken from Ivanova's papers for pure metals corresponding to the bases of alloys used in the present paper. The critical number of cycles N_k was determined from the experimental value of fatigue limit. It is shown that N_k for the same metal or alloy depends little on the cycle asymmetry and the technology of preparation of the specimens. [Abstracter's note: Complete translation.]

Card 2/2

VOLKOV, S.I., kand. tekhn. nauk [deceased]; GORODETSKIY, I.Ye., doktor tekhn. nauk, prof. [deceased]; GOROSHKIN, A.K., inzh.; DOSCHATOV, V.V., inzh.; ZAMALIN, V.S., inzh.; KEDROV, S.M., kand. tekhn. nauk; MALOV, A.N., kand. tekhn.nauk, prof.; MARDANYAN, M.Ye., inzh.; PANCHENKO, K.P., kand. tekhn. nauk; ROZHDESTVENSKIY, L.A., kand. tekhn. nauk; SEKRETEV, D.M., inzh.; SYROVATCHENKO, P.V., kand. tekhn. nauk; TAURIT, G.E., inzh.; EL'YASHEVA, M.A., kand. tekhn. nauk; YAKUSHEV, A.I., doktor tekhn.nauk, prof.; KOVAN, V.M., doktor tekhn.nauk, prof., red. [deceased]; SERGEYEV, V.M., inzh., red. izd-va; CHERNOVA, Z.I., tekhn. red.; EL'KIND, V.D., tekhn. red.

[Handbook for the mechanical engineer] Spravochnik tekhnologa-mashinostroitelia; v dvukh tomakh. Glav. red. V.M.Kovana. Moskva, Mashgiz. Vol.2. 1963. 912 p. (MIRA 16:7)
(Machinery--Design and construction)

ARKHANGEL'SKIY, N., BABAYEV,M., GLADKOV, M., EL'YASHEVICH, Z., KAMYSHKO, A.; KUZYATIN, G., [illegible], KULIYEV, S., MOVSESOV,N., POPOV, A., PORTNOY,T., RIZNIK, A., SEROVA, Ye., TARASOV, A., TULIN,V., SHISHKIN. O., SHKOL'NIKOV, B., SHTURMAN, L., CHESNOKOV, V., EFENDIZADE, A.

K.N.Kulizade, candidate of engineering. Energ.biul. no. 5 23-24 My '58. (MIRA 11:8)

(Kulizade, Kiazim Novrus, 1908-)

EL'YASHOV, L.

15078

USSR/Banking 4908.0100 4414.0500 Sep 1947
Shoe Manufacturing

"Results of Lack of Control," L. El'yashov, 2½ pp

"Sov Finansy" Vol VIII, No 9

Criticizes lack of control in connection with expenditures for capital construction, capital repairs, and maintenance work. Divided control over such expenditures between Prombank (Industrial Bank), Gosbank (State Bank), and main administrations in charge. Bureaucratic footwear factory especially criticized. Bureaucratic footwear factory criticized for covering up such expenditures through a contract device between two factory depts. Personalities involved were Kroytsman, Deputy Director.

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LC

USSR/Banking 4908.0100 (Contd) Sep 1947

of the plant, and Shmel'man, Capital Repair Work Dept Head. Indication that a wage of 35-40 rubles a day for construction work at Bureaucratic footwear factory was too high.

15078

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ARALOV, V.; EL'YASHOV, M.

Discounts on the grade and quality of goods. Sov. torg. 34 no.12: 33-36 D '60. (MIRA 13:12)
(Russia--Manufactures) (Russia--Commerce)

SOV/3-58-11-17/38

AUTHORS: Netsenko, A.V., Candidate of Economic Sciences, and El'yashova, L.L., Assistant

TITLE: In This Way the Ability of Creative Thinking is Being Developed (Tak razvivayetsya umeniye tvorcheski myslit')

PERIODICAL: Vestnik vysshey shkoly, 1958, Nr 11, pp 45 - 49 (USSR)

ABSTRACT: The Chair of Political Economy of the Leningrad Polytechnical Institute is devoting much consideration to seminar exercises, particularly to the method in which they are conducted. The main purpose of a seminar is to arouse in youth love for science, inquisitiveness, ability to think independently and to understand the complicated phenomena of social life. For this reason, the Chair strives to ensure that the students comprehend well the material they are dealing with, that they know how to prove the correctness of the theses expressed, can reply to questions for which there are no ready answers in the textbook, apply the matter they have learned to events of international and domestic life, etc. The authors then go on to explain how a seminar can be made creative. For this purpose they quote an ex-

Card 1/2

Elyukim, S. B.

AUTHORS: Gorelik, R. Ya., Elyukim, S. B. 119-1-10/13

TITLE: Piston Pressure Gauge With Automatic Load Shifts (Porshnevoy manometr s avtomaticheskoy smenoy gruzov).

PERIODICAL: Priborostroyeniye, 1958, Nr 1, pp. 29-29 (USSR)

ABSTRACT: The characteristic feature of this pressure gauge consists in a stepwise arranged headpiece which is rigidly connected to the piston. When moving upward the load is taken up stepwise. In the moment when the load on the piston does no longer touch the body of the pressure gauge a constant pressure establishes itself in the whole measuring system which is equal to the weight of the load plus piston divided by the effective surface on which the load is placed. At this moment the measurement is performed.
Together with the piston pressure gauge there are connected 2 signal pressure gauges, 2 relays, 2 magnetic valves and a pressure equalizing reservoir, and they are on the one side connected with the compressed air distribution system and on the other side with a 220 V and 27 V system, This represents the total measurement system.

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Piston Pressure Gauge With Automatic Load Shifts 119-1-10/13

There are 2 figures.

AVAILABLE: Library of Congress

1. Pressure gages-Operation

Card 2/2

L 1476-66 EWT(d)/T IJP(c)

ACCESSION NR: AP5021863 UR/0280/65/000/004/0192/0194

AUTHOR: Mosevitskiy, I. S. (Moscow); Elyukim, S. B. (Moscow)

TITLE: A problem of nonlinear programming

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 4, 1965, 192-194

TOPIC TAGS: nonlinear programming, algorithm, computer programming, nonlinear equation

ABSTRACT: Numerous technological objects may be described by a system of algebraic or transcendental equations. In the majority of cases such a (basically nonlinear) system of equations is extremely complex. The authors propose a unique numerical method for the solution of the systems of nonlinear equations or for the study and optimizing of a certain function of the variables of the problem. It is a generalization of Newton's method of tangents and the gradient method for the extremum search, and the authors apply it to the so-called local problems (the search of the roo. or extremum which is the nearest to the initial approximation). On the basis of the proposed method an algorithm was developed at the Institut atomnoy energii im. I. V. Kurchatova (Institute of Atomic Energy) leading to a universal program of local analysis of nonlinear equations and inequalities

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ACCESSION NR: AP5021863

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on the M-20 computer. The maximum order of the problem under study is 45. The program has already been successfully used for the solution of numerous problems. "The authors thank V. A. Khodakov and N. N. Ponomarev-Stepnoy for their participation in the discussion of the present paper and for their useful remarks."
Orig. art. has: 11 formulas.

44,55

ASSOCIATION: None

SUBMITTED: 20Jul63 ENCL: 00 SUB CODE: DP, MA

NO REF SOV: 000 OTHER: 001

Card 2/2

KRAVETS, M.A., inzh.; ELYUKIN, S.B.

Optimal vertical planning of a territory. Prom.stroi. 43 no.12:40-41 '65. (MIRA 18:12)

L 45854-66

ACC NR: AP6020359 SOURCE CODE: UR/0104/66/000/003/0083/0084

AUTHOR: Kholyan, A. M. (Engineer); Elyukim, S. B. (Engineer); Onuchin, V. Ya. (Engineer); Kravets, M. A. (Engineer)

ORG: None

TITLE: Application of computers for designing cable raceways

SOURCE: Elektricheskiye stantsii, no. 3, 1966, 83-84

TOPIC TAGS: electric engineering, electric cable, electric network, electronic computer / M-20 electronic computer

ABSTRACT: Application of electronic computers to wiring design and circuit calculations is discussed in connection with a paper published by the Ural Branch of the Teploelektroproyekt Institute. The paper in question deals with design considerations and economics of wiring raceway systems used at electric power plants for auxiliary power circuits. An electronic computer of M-20 type was used by the Institute for circuit and conductor calculations on the basis of layouts providing information on cable raceways, cable crossings, junctions, riser columns, interconnections, etc. Numbers were assigned to each raceway, column, connection and special tabular graphs were prepared. The mathematical aspect of calculations is discussed by the authors and some examples of using graphs are explained. Various versions for economical cable laying (shortest distance, cable weight) are briefly examined. The results obtained in cable raceway calculations include the cable length, panel number, consumer number and interconnection numbers.

SUB CODE: 09/ SUBM DATE: None

Card 1/1 UDC: 621.315.29