

L 95339-01 INT(1) CW
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SELEZNEV, G. S.

21
B

"Determination of the Seismic Load for a Dam made of Local Materials"

Dushanbe, Doklady Akademii Nauk Tadzhikskoy SSR, 9, No 4, 1966, pp 14-18

Abstract: The standard way of analysing design factors in earthen dams has been to select a section in the form of a wedge going from front to rear of the dam and calculate the loads throughout the sector as if the arbitrarily chosen boundaries were absolutely rigid. In earlier works, this method has been applied to calculation of seismic loads for dams constructed in seismically active areas; however, only seismic waves in the transverse direction were analysed, whereas in actually the direction of the seismic wave vector may be any direction. This article analyses oscillations of the material in the wedge in all three mutually perpendicular directions. It is concluded that the seismic loads for a dam made of local materials can be determined on the basis of the dynamic theory of seismic stability, allowing a more complete assessment of the seismic action factor in planning such dams for seismically active regions. Orig. art. has: 1 figure and 17 formulas. [JPRS: 36,581]

ORG: Institute of Earthquake proof construction and Seismology, AN TadzSSR (Institut seysmostoykogo stroitel'stva i seysmologii AN TadzSSR)

TOPIC TAGS: civil engineering, seismic wave

Card 1/1

SUB CODE: 13,08 / SUBM DATE: 26 Feb 65 / ORIG REF: 004 / OTH REF: 004
0923 0798

SELEZNEV, I.

In the home land of Andrian Nikolaev; Photography exhibition in
the Chuvashia. Sov.foto 23 no.1:19 Ja '63. (MIRA 16:5)
(Nikolaev, Andriian Grigor'evich, 1929-)
(Chuvashia--Exhibitions)

SELEZNEV, I.

Amateur photographers take pictures under water. Sov.foto 23 no.3:
40-41 Mr '63. (MIRA 16:4)

(Photography, Submarine)

1. SELEZNEV, I.
2. USSR (600)
4. Food Industry-Accounting
7. Improving reciprocal accounts., Mias.ind.SSSR, 23, No.5, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

PISAREVSKIY, A.N.; SELEZNEV, A.F.; PASHEK, G.M.

Model study of the characteristics of some radiation-protective substances. Radiobiologiya 5 no.5:768-770 '65.

(MIRA 18:11)

1. Belorusskiy gosudarstvennyy universitet imeni V.I. Lenina, Minsk.

SELEZNEV, A.F.; PASHEK, G.M.

Liquid scintillator method used in studying the mechanism of
the action of radiation-protective substances. Dokl. AN BSSR
9 no. 5:331-332 My '65 (MIRA 19:1)

1. Belorusskiy gosudarstvennyy universitet imeni V.I. Lenina.
Submitted April 3, 1964.

137-58-2-4095

SELEZNEV, A. G.
Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 262 (USSR)

AUTHORS: Seleznev, A.G., Lysenko, M.D.

TITLE: The Peculiarities of Metal Wear When Temperatures are High and Sliding Speeds Great (Osobennosti iznosa metalla pri povyshennykh temperaturakh i bol'shikh skorostyakh skol'zheniya)

PERIODICAL: Tr. Khar'kovsk. politekhn. in-ta, 1957, Vol 9, pp 93-99

ABSTRACT: Tests were made to ascertain the wear sustained by Ni, cast German silver, and brass L62 at high sliding speeds (48-65 m/sec) and at room temperature and higher temperatures (up to 500°C). An investigation was made of the effect on wear of temperature, loading, and duration of dry friction. It was found that the "wearing in" process in the case of the tested alloys, both at room temperature and above, terminated after 20-30 seconds of the operation of the friction. As the temperature increased, the wear exhibited by the German silver decreased. In the case of Ni and brass L62, wear at first declined, but by 200-300^o it started to increase again. With the German silver, it began slowly to increase as soon as the loading reached 7.5 kg/cm² -- in the case of the Ni and brass, as soon as it reached 10 kg/cm².

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137-58-2-4095

The Peculiarities of Metal Wear When Temperatures are High (cont.)

It was observed that the lower the heat conductivity, thermal diffusivity, and melting point of the metal or alloy were, the greater was its resistance to wear. The "sweating" of the metal on the dry-friction surface, having the effect of a lubricant, reduced the coefficient of friction.

T.F.

1. Stool--Friction--temperature effects

Card 2/2

137-58-3-5973

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 217 (USSR)

AUTHORS: Seleznev, A. G. , Lysenko, M. D.

TITLE: Surface Damages of Turbine Shafts Caused by Friction Against Sealing Metal (Povrezhdeniye poverkhnosti vala metallom uplotneniya pri trenii)

PERIODICAL: Tr. Khar'kovsk. politekhn.in-ta, 1957, Vol 11, pp 39-44

ABSTRACT: For the purposes of selecting suitable material for steam seals on turbine shafts investigations were performed on 30KhM steel in order to determine its tendency to develop a surface groove when rubbing against a 2 mm wide ring (R) made of Ni, N2, or German silver (70 percent Cu, 17 percent Ni, and 13 percent Zn), as well as of brasses L68, L62, LS59-1, and LMtsN 54-2-2. The R revolved on a stationary steel specimen (S) which was pressed against the R by means of a constant load. The extent of the damage was determined from the cross-sectional area of the groove in the region of greatest penetration of the R. The load placed on the S amounted to 2.5 kg; the duration of exposure to friction was 60 seconds.

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Investigations were performed at temperatures ranging from

137-58-3-5973

Surface Damages of Turbine Shafts Caused by Friction Against Sealing Metal

20° to 500°C. It is established that the damage of a steel S with an R_c of 48 caused by friction against R made of brass LS59-1 at a temperature of 300° is 2.5 times as great as the damages suffered by an identical S with an R_c of 34. Increasing the circumferential speed of the R reduces the wear of the S. A graph is shown which describes the effect of temperature on the amount of wear suffered by a steel S. Maximum wear was produced by a R made of Ni. The degree of wear produced in a steel S by a ring made of L68 brass increases continuously with increasing temperatures. Minimum wear at temperatures in excess of 200° is achieved by employing LS59-1 brass. Minimum heating in the process of cutting in the groove on a steel S is produced by Ni and German silver, while brasses L68 and LMtsN 54-2-2 develop maximum amounts of heat.

N. K.

Card 2/2

SELEZNEV, A. G.

137-58-2-4164

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 271 (USSR)

AUTHORS: Seleznev, A.G., Kaplan, R.S., Popova, N.N.

TITLE: The High-temperature Strength of Steel 1Kh13 (Prochnost' stali 1Kh13 pri povyshennykh temperaturakh)

PERIODICAL: Tr. Khar'kovsk. politekhn. in-ta, 1957, Vol 11, pp 45-53

ABSTRACT: A study was made of two heats of steel 1Kh13 and one heat of steel 2Kh13 after both had been normally heat-treated. The σ_b , σ_s , δ , ψ , and a_k values were determined at temperatures ranging from 20 to 550°C, and the influence of the deformation rate on changes in the mechanical properties was investigated. It was found that steels 1Kh13 and 2Kh13 are not sensitive to tempering brittleness. Within the 300-350° temperature range a determination was made of the long-term rupture strength over periods of 1,000-100,000 hours, of the creep limit over periods of 10,000 and 100,000 hours, and of the stresses producing a 1 percent deformation. The long-term rupture strength for a > 6,000-100,000 hour life was obtained by extrapolation from the long-term strength curves. To investigate the stability

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137-58-2-4164

The High-temperature Strength of Steel 1Kh13

of the structure and properties, the mechanical properties of the steels were determined at room temperature after a prolonged heating (up to 5,000 hours) at 470 and 530°, with subsequent cooling in air. Steel 1Kh13 was found to have stable properties when heated for long periods (up to 5,000 hours) at temperatures up to 550°. When stressed for long periods at these same temperatures it exhibited eminently plastic properties. Its strength was not impaired by notching; the long-term strength of the notched bars exceeded by 50 percent that of the smooth bars.

T. F.

1. Steel—Tensile properties
2. Steel—Temperature effects
3. Steel—Deformation

Card 2/2

AUTHORS: Kraynov, V. N., Seleznev, A. G. SOV/64-58-5-12/21

TITLE: The Measurement of the Flow Rate of an Aggressive Liquid
by Means of a Flowmeter With Special Separation Vessels
(Izmereniye raskhoda agressivnoy zhidkosti tipovym raskhodome-
rom so spetsial'nymi razdelitel'nymi sosudami)

PERIODICAL: Khimicheskaya promyshlennost', 1958, Nr 5, pp. 312 - 312 (USSR)

ABSTRACT: In the construction of flowmeters used hitherto in the
measurements of the flow rate of such liquids as dilute nitric
acid the measuring apparatus was destroyed after some time
since the acid, because of its capillary force, penetrated
through the separating liquid at the walls of the separation
vessel and the impulse tubes. A continuous measuring in the
case of nitric acid and similar liquids has not been carried
out since nitric acid reacts with the explosive mercury
mixtures of the nitrogen oxides hydrogen. The Laboratory for
Automation of the State Institute of Nitrogen Industry
(Laboratoriya avtomatiki Gosudarstvennoy instituta azotnoy
promyshlennosti) together with the KIP and Automation
Section of the Chernorechensk Chemical Plant (Chernorech-
enskiy khimicheskiy zavod) investigated the possibility of

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The Measurement of the Flow Rate of an Aggressive Liquid by Means of a Flowmeter With Special Separation Vessels SOV/64-58-5-12/21

the above mentioned continuous measurements with standard flowmeters of the type DP-410. For this purpose a special separation vessel was constructed. A diagram of this vessel is given; an organo-fluorine compound was used as separating liquid. The vessel is supplied with a fluoroplast-4 (ftoroplast-4) shell which is longer or shorter, depending on the specific weight of the liquid. Experiments carried out with these separation vessels in practical operation for a longer period of time made the authors assume that they can also be used in the case of other aggressive liquids besides weak nitric acid. There is 1 figure.

1. Nitric acids 2. Fluid flow--Measurement 3. Flowmeters--Performance 4. Separators--Applications 5. Fluorine compounds (Organic)--Applications 6. Mercury compounds--Chemical effects

Card 2/2

IVANOVA, L.P.; SELEZNEV, A.G.

Distribution of carbon and silicon between phases during the
isothermal transformation of 60S2 steel. Trudy KhPI 21
Ser.met. no.4:23-29 '59 (MIRA 14:7)
(Steel--Metallography)

S/123/61/000/016/003/022
A004/A101

AUTHORS: Seleznev, A.G., Tseluyko, V.I.

TITLE: Coefficient of friction at high temperatures

PERIODICAL: Referativnyy zhurnal. Mashinostroyeniye, no. 16, 1961, 34, abstract
16A240 ("Tr. Khar'kovsk. politekh. in-ta", 1960, v. 15, 87 - 90)

TEXT: The authors present the results of investigations to determine the friction coefficient μ of a number of metals during their friction on 30XM (30 KhM) grade steel of HB-180 hardness. The investigations showed that the decisive factor affecting the value of the friction coefficient at high temperatures is, above all, the capacity of the metal to form a strong and elastic oxide film. Moreover, the stronger the metal layer under the oxide film, the lower will be the μ value. Another factor is the ability of forming a liquid layer on the friction surface. In the latter case, apart from the presence in the alloy of low-melting metals in a free state (e.g. lead) the heat conductivity of the metal is of great importance. The lower the heat conductivity, the lower is the temperature of the surrounding medium at which a fusion of the friction volume of the more low-melting metal of the friction couple takes place.

[Abstracter's note: Complete translation]
Card 1/1

FOMINA, O.P.; GAVRANEK, V.V.; D'YACHENKO, S...; SELEZNEV, A.G.; GERMAN, S.I.

Nature of the white streak in welds. Metalloved. i term.obr.met.
no.1:46-47 Ja '65. (MIRA 18:3)

1. Khar'kovskiy politekhnicheskii institut i Khar'kovskiy
turbinnyy zavod.

L 34083-65 EPA(s)-2/EWP(k)/EWA(c)/EWT(m)/EWP(b)/T/EWP(v)/EWP(t) Pr-4 JD/HM

ACCESSION NR: AP5007337

S/0135/65/000/003/0013/0014

27
25
B

AUTHOR: Fomina, O. P. (Engineer); Gavranek, V. V. (Candidate of technical sciences);
D'yachenko, S. S. (Candidate of technical sciences); Seleznev, A. G. (Candidate of
technical sciences); German, S. I. (Candidate of technical sciences)

TITLE: Simulating the white stripe in welded joints

SOURCE: Svarochnoye proizvodstvo, no. 3, 1965, 13-14

TOPIC TAGS: steel welding, weld seam strength, white stripe, perlitic steel,
carbon steel, alloy steel, thermal degradation, gradient heating

ABSTRACT: The authors note that a white stripe is observed in the heating zone during the macro-etching of welded joint templates of perlite steels and that, according to earlier investigations, this stripe is located in a zone corresponding to heating of the base metal to intercritical temperatures. The need for study in this area is noted and it is pointed out that simulation is the sole feasible method for such research. In this article, therefore, the problem of simulating the white stripe in welded joints is considered. In this connection, the authors propose that a well known method be used, for the purpose of simulation, involving the gradient heating of wedge-shaped samples. In the tests described in the paper, rectangular samples of different carbon and alloy steels (measuring 10 x 10 x 25
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and 20 x 20 x 50 mm) were flashed off, as well as round samples, 18 mm in diameter and 50 mm long. Depending on the size of the samples, the rate of heating in the upper range of the temperatures tested varied from 10 to 20 degrees/second. After flash-off, the samples were cooled at a rate of 70 degrees/second (in water), 8-13 degrees/second (in air) and 5-6 degrees/second (in sand heated to 400 C), thus permitting the study of the processes in the formation of those structures, different in character, which take place in the white stripe of real welded joints under different types and conditions of welding. The authors emphasize that the method described in this paper permits the study of mechanical properties only as a function of structure. On the other hand, in actual welded joints, these properties may change somewhat due to the field of stresses which develop during welding. However, such variations will inevitably be of only a quantitative, and not a qualitative, nature. In this way, the simulation methods proposed in this article (that is, the "gradient heating method" or the method involving the machining of separate samples from the intercritical temperature interval) are convenient for the study of the structural formation processes and for determining a complete set of mechanical properties of the white stripe. Specifically, the most suitable method of gradient heating is found to be the electric heating of wedge-shaped samples. The considerable width of the white stripe in this case and

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the possibility of varying the cooling rate recommend this technique not only for a detailed study of hardness distribution, but also for the investigation of subtle and fine structural changes in the white stripe itself. Orig. art. has: 4 figures.

ASSOCIATION: KhPI im. V. I. Lenina; KhTGZ im. S. M. Kirova

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 004

OTHER: 000

Card 3/3

ACC NR: AR6035112 (2) SOURCE CODE: UR/0137/66/000/008/I059/I059

AUTHOR: Seleznev, A. G. ; Gavranek, V. V. ; Shumakov, Yu. I.

TITLE: Hydroabrasive resistance of transition grade 10Kh15N4G4D2L stainless steel

SOURCE: Ref. zh. Metallurgiya, Abs. 8I402

REF SOURCE: Sb. Kavitats, i gidroabrazivn. stoykost' met. v gidroturbinakh. M., Mashinostroyeniye, 1965, 111-114

TOPIC TAGS: steel, stainless steel, high temperature steel, martensite steel, abrasive, abrasion resistant steel/10Kh15N4G4D2L stainless steel

ABSTRACT: The steel under investigation was of the following composition (in %): C, 0.07; Cr, 15; Ni, 4.2; Mn, 4; Cu, 2; W, 0.3. In cast state $H_B = 163$ and there is no ferrite in the structure. The machining conditions rate for 10Kh15N4G4D2L steel were established: normalizing after casting is made at 900—950C (for producing the maximum amount of martensite); high temperature tempering, at 700C with subsequent aging at 450C for 1.5—2 hours (σ_t , 96.0

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UDC: 669.15.018.8

ACC NR: AR6035112

kg/mm²; σ_s , 59.4 kg/mm²; δ , 26%; ψ , 45%; a_k , 9.3 kgm/cm²); the other variant calls for sub-zero treatment after normalizing and subsequent aging at 450C for 2 hours (σ_s , 107 kg/mm²; σ_s , 82.1 kg/mm²; δ , 12.4%; ψ , 29.2%; a_k 9.1 kgm/cm²). The hydroabrasive stability of the steel is higher after sub-zero treatment than with high-temperature tempering. Good wear resistant steel can be produced even at 340 H_B exceeding the wear resistance of 1Kh18Kh9T and 1Kh18N3G3D2L steels. V. Olenicheva. [Translation of abstract] [AM]

SUB CODE: 13/

Card 2/2

SELEZNEV, Aleksandr Gavrilovich; LIKHANOVA, V.K., red.; MELEKHOVA,
L.S., tekhn. red.

[Excursion routes through the historical places of Archangel and
Archangel Province] Marshruty ekskursii po istoricheskim mestam
Arkhangel'ska i Arkhangel'skoi oblasti. Arkhangel'sk, Arkhangel'-
skoe izd-vo, 1961. 93 p. (MIRA 15:5)
(Archangel Province--Guidebooks)

SEFEZNEV, Andrey Ivanovich; GALADZHIY, Fedor Mikhaylovich; KUBENEV, Kh.
redaktor; GRISHAYENKO, M.I., redaktor; NADEINSKAYA, A.A. tekhnicheskii redaktor.

[Stemming bore holes in underground blasting (in coal mines)]
Vnutrenniaia zaboika shpurov pri vzryvnykh rabotakh (v ugol'nykh shakhtakh). Moskva, Ugletekhizdat, 1955. 24 p. (MLRA 8:8)
(Blasting)

SELEZNEV, I.

Credit for small-scale mechanization. Fin. i kred. SSSR no. 3:57-58
Mr '54. (MLRA 7:4)

(Credit)

SELEZNEV, I.

State bank credits for mechanizing the processing of food
products. Mias.ind.SSSR 25 no.1:49 '54. (MLRA 7:3)
(Food industry)

SELEZNEV, I.

Recent credit policies in the meat industry. Mias.ind. SSSR 25 no.4:
48-49 '54. (MLRA 7:8)

1. Ministerstvo promyshlennosti myasnykh i molochnykh produktov SSSR.
(Meat industry--Finance)

SELESNEV, I.

State Bank credit for the equipping of livestock fattening points.
Mias.ind.SSSR 26 no.2:42-43 '55. (MIRA 8:7)

1. Ministerstvo promyshlennosti myasnykh i molochnykh produktov
SSSR. (Stock and stockbreeding)

SELEZNEV, I.

New policy in construction financing. Mas. ind. SSSR 29
no.5:44 '58. (MIRA 11:10)
(Meat industry--Finance)

SELEZNEV, I. I.

107-57-6-24/57

AUTHOR: Gaplichuk, O. (Kiyev)

TITLE: A Conference on Automation of Radio-Communication and Radio-Broadcasting Equipment (Konferentsiya po avtomatizatsii sredstv radiosvyazi i radioveshchaniya)

PERIODICAL: Radio, 1957, Nr 6, p 22 (USSR)

ABSTRACT: The Ukrainian Directorate of NTORiE imeni C. A. Popov and the Kiyevskaya direktsiya radiosvyazi i radioveshchaniya (DRSiV) (Kiyev Directorate of Radio Communications and Radio Broadcasting) have organized a scientific and engineering conference devoted to the problems of automation of radio broadcasting and radio communication means. Inventors of Ukraine and Belorussia, engineers, technicians, scientific workers, representatives of the Ministries of Communications of USSR and UkrSSR, etc., took part in the conference. I. Kirichenko, Minister of Communications of the UkrSSR, delivered a report on fundamental problems in the field. G. Fedunin, a representative of the Technical Division of the Ministry of Communications, USSR, delivered a report on the aims of automation and requirements of the automatic equipment. P. Karavayev, of the Kuybyshevskoye otdeleniye Nauchno-

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107-57-6-24/57

A Conference on Automation of Radio-Communication and Radio-Broadcasting

Scientific and Research Institute of the Ministry of Communications), reported on various systems of automation of shortwave transmitters and on various automatic frequency-control systems. I. Seleznev, a representative of the same institute, delivered two reports: (1) on economical operation of radio broadcast stations, and (2) on thyatron-type remote-control systems. In all, there were twelve reports delivered. It was noted in the decisions of the Conference that the introduction of automation was inadequate and that the automation of equipment already in operation should be conducted by operating organizations themselves.

AVAILABLE: Library of Congress

Card 2/2

AUTHOR: Seleznev, I.I., Engineer SOV/111-58-3-12/29
 TITLE: Problems of Saving Electric Power at Radio Stations (Voprosy ekonomii elektroenergii na radioveshchatel'nykh stantsiyakh)
 PERIODICAL: Vestnik svyazi, 1958, Nr 3, p 13-14 (USSR)
 ABSTRACT: The author shows the great importance of correctly calculating the specific power consumption at radio stations, and indicates methods for reducing the power consumption. He calculates the specific power consumption according to the formula

$$P_{spec} = \frac{P_{requ}}{P_c \left(1 + \frac{M_{av}^2}{2}\right)}$$

whereby P_{spec} - specific power consumption, P_{requ} - power required by the transmitter, P_c - carrier frequency power, M_{av} - average modulation factor. The average modulated HF energy W_{avmod} is calculated according to the formula

$$P_{avc} \left(1 + \frac{M_{av}^2}{2}\right) t = W_{avmod}$$

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SOV/111-58-3-12/29

Problems of Saving Electric Power at Radio Stations

whereby P_{avc} -average carrier frequency power, M_{av} -average modulation factor, t - time. At the Kuybyshevskaya direktsiya radioveshchaniya i radiosvyazi (Kuybyshev Directorate for Broadcasting and Radio Communication), an instrument was built for calculating W_{avmod} , which basically consists of a blocking oscillator circuit with an impulse counter connected to the anode circuit. Another instrument for the same purpose which represents a HF power pick-up was developed by Engineer L.M. Kuvshinov. Its circuit diagram is shown in Figure 4. The use of the aforementioned instrument will lead to a more effective control of the power consumption of radio stations. There are two graphs and one diagram.

Card 2/2

SELEZNEV, I.I., dotsent; TARANENKO, A.D., inzh.

Methodology for controlling the quality of the operation of
radio broadcasting transmitters. Vest. sviazi 22 no.12:5-7
D '62. (MIRA 16:1)
(Radio--Transmitters and transmission)

44643

8/106/63/000/001/002/007
A055/A126

6.4500
6.4800

AUTHORS: Seleznev, I.I., Safin, M.S., Taranenko, A.D.

TITLE: Method and apparatus for measuring the power of spurious radiation from short-wave transmitters

PERIODICAL: Elektrosvyaz', no. 1, 1963, 13 - 16

TEXT: The new method described in this article is based on the formulae:

$$p = \frac{U_{\max} U_{\min}}{W_f}, \tag{1}$$

or
$$p = I_{\max} I_{\min} W_f, \tag{2}$$
 X

where p is the measured power passing through the feeder, W_f is the wave-impedance of the feeder, and U_{\max} , U_{\min} , I_{\max} and I_{\min} are, respectively, the voltages and currents in antinodal and nodal points of the line. The quantities α''_{\max} and α''_{\min} (deviations of the pointer) determined by the expressions

$$I_{\max} = C_2 \alpha''_{\max}, \quad I_{\min} = C_2 \alpha''_{\min}, \tag{4}$$

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Method and apparatus for measuring the power of

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where C_2 is a proportionality coefficient, are measured in the method, and the spurious radiation power is calculated with the aid of formula:

$$P = B_2 W_f \alpha_{\max}'' \alpha_{\min}'' \quad (6)$$

B_2 ($B_2 = C_2^2$) and W_f being known. The measuring apparatus (Fig. 1) contains a single wire-loop 1 (75 mm in diameter) placed in an electrostatic shield. The distance between loop and feeder is 250 mm. The selective properties of the loop are used for separate measurement of antiphase and cophase wave power. The emf induced in the loop is applied, through the symmetrical h-f cable 2 and the active matching four-pole 3, to the h-f filter 4, which is a type "mk" iterative filter serving to suppress the fundamental frequency voltage. (The circuit diagram and the frequency response of the filter are reproduced in the article.) The voltage is next applied, through the balancing h-f transformer 5, to the frequency-selective microvoltmeter 6, which contains a sensitive receiver with calibrated amplification. The devices 3, 4, 5 and 6 are placed inside a grounded iron housing. The values of α_{\max}'' and α_{\min}'' are read on the scale of the microvoltmeter tuned to a determined harmonic-component frequency. In an experimental apparatus, the range of the harmonic-component frequencies was 30 to 140 Mc/s (adequate alterations permit reducing it to 3 Mc/s); the limits of the measured power

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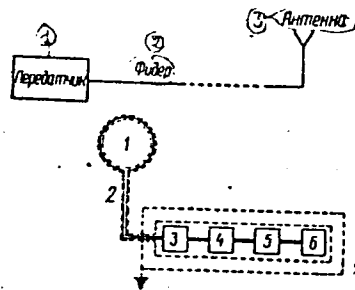
Method and apparatus for measuring the power of

S/106/63/000/001/002/007
A055/A126

er were 1 μ w and 50 w; the measurement precision was not less than $\pm 25\%$. The determination of the proportionality coefficient B_2 is briefly described on a practical example at the end of the article. There are 4 figures.

SUBMITTED: February 5, 1962

Figure 1: (1) - transmitter
(2) - feeder
(3) - antenna



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AUTHOR: Seleznev, I.I. SOV/138-58-8-8/11
TITLE: Testing Automobile Tyres (Problema ispytaniya avtomobil'nykh shin)
PERIODICAL: Kauchuk i Rezina, 1958, Nr 3, pp 32 - 35 (USSR)
ABSTRACT: This article deals first with a paper presented at a technical conference in Moscow during November, 1957, by G. Khanitz of East Germany, on measurement of forces in the wall of a tyre. The apparatus is illustrated in Fig.1, and, diagrammatically in Fig.2. A steel ring is fixed to the wall of a 7.50 - 20 sized tyre. There is a gap in the steel ring, and a dynamometer bridges the gap. Displacement of the ends of the ring alters the gap dimension and deflects the dynamometer. The needle of the dynamometer records these displacements onto a tape at the centre of the wheel, and gives a trace as depicted in Fig.3 while the wheel is in motion. Measurements were made on the rear wheel of a car on roads with various surfaces, and at speeds up to 40 km/hr. On a smooth concrete road the trace was practically straight and equal to the displacement measured while the wheel was stationary. On a worn asphalt road the

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Testing Automobile Tyres

SOV/138-58-8-8/11

trace showed peaks amounting to 200% of the value for a smooth road. Tests were also made in a rig where loads were dropped onto the tyre in order to simulate obstacles on a road. The forces in the side wall are not equally distributed in such cases. There was practically no displacement of the side ring when the gap was turned 90° from the point of impact. Khanitz proposes that the actual forces arising in the side ring have a magnitude 0.6 to 0.8 times the forces predicted by the normal theory of thin shells. The article continues with points from a paper presented by G. V. Weingold, also from East Germany, on testing tyres on rotating drum rigs. His paper deals with the dependence of the life of the tyre on test with such factors as: size and number of projections (obstacles) on the drum, the diameter of the drum, the speed of the drum, the load on the tyre, and its internal pressure. Tests were made on various sizes of tyres at speeds up to 120 km/hr on drums 1100 mm and 1600 mm diameter, with up to three projections on the drum. Fig.4 compares life at various loads for tests on the two sizes of drum. Load is measured in kg., and life in thousands of km. The test

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Testing Automobile Tyres

SOV/138-58-8-8/11

was conducted at 120 km/hr. on the 1100 mm drum, tyre failures were through delamination of the cover. On the 1600 mm drum, failures were through rupture of the tyre cord. Fig.5 relates the same life versus load factors, but the curves are drawn for speeds of 60, 80, and 110 km/hr respectively. The test was on a 1600 mm drum. At high speed failures were through delamination of the breaker rubber. At lower speeds failures were either through failure of the tyre cord or delamination of other parts of the tyre. Fig.6 relates the life on test (thousands of km) at two different speeds (80 km/hr and 120 km/hr) for drums of the two diameters with and without projections, and gives the usual cause of failure. Fig.7 compares the life, as determined by rig tests, with life as determined by road trials. (Columns designated I and III are for rig tests, and F for road tests). From these comparisons it is suggested that rig tests should be carried out under the following conditions: drum diameter - 1590 mm (5000 mm periphery); speed - 80 km/hr; three spherical projections 50 mm diameter and 20 mm high. Normal load and normal tyre pressure for given load. The

Card 3/4

SOV/138-58-8-8/11

Testing Automobile Tyres

tyre should be held at 60°C. for 48 hours before the test. The article concludes with mention of a paper by M. Fisher of Czechoslovakia on impact testing of tyres by dropping loads with hemispherical form onto tyres with various thicknesses of cover, and inflated at different pressures. This work brought out the importance of the method of impregnating the tyre cord material. There are 7 Figures. (Based on materials of the Scientific-Technical Conference of representatives of People's Democracies, November 1957, Moscow)

Card 4/4

~~SEIFEN, I. I.~~

New tires. Nauka i zhizn' 25 no. 6:5 Je '58.

(MIRA 11:8)

1. Nachal'nik konstruktorsko-eksperimental'nogo otdela Nauchno-
issledovatel'skogo instituta shinnoy promyshlennosti.
(Tires, Rubber)

SELEZNEV, Ivan Ivanovich; TSUKERBERG, Solomon Maksimovich; NENAKHOV,
Boris Viktorovich; KOLESNIK, P.A., red.; SMIRNOVA, V.K., red.
Izd-va; GALAKTIONOVA, Ye.N., tekhn.red.; DONSKAYA, G.D.,
tekhn.red.

[Means for prolonging the life of tires] Puti uvelichenia probega
avtomobil'nykh shin. Moskva, Avtotransizdat, 1960. 47 p.
(MIRA 13:9)

(Tires, Rubber—Maintenance and repair)

ANIKANOVA, K.F.; ZAKHAROV, S.P.; SELEZNEV, I.I.; FURMAN, P.Yu., red.;
ZAZUL'SKAYA, V.F., tekhn. red.

[Tires for tractors, tractor trailers, and agricultural
machines; reference materials] Shiny dlia traktorov, traktornykh
pritsepov i sel'skokhoziaistvennykh mashin; spravochnye materi-
aly. Moskva, Goskhimizdat, 1963. 51 p. (MIRA 16:4)
(Agricultural machinery—Tires)

BIDERMAN, Vadim L'vovich; GUSLITSER, Ruvim L'vovich; ZAKHAROV,
Sergey Petrovich; NENAKHOV, Boris Viktorovich;
SELEZNEV, Ivan Ivanovich; TSUKERBERG, Solomon Maksimovich;
BUKHIN, B.L., red.; KOGAN, V.V., tekhn. red.

[Motor-vehicle tires; design, construction, testing, and
operation] Avtomobil'nye shiry i konstruktsiia, raschet,
ispytanie, ekspluatatsiia. [By] V.L.Biderman i dr. Mo-
skva, Goskhimizdat, 1963. 382 p. (MIRA 16:12)
(Motor vehicles--Tires)

SELEZNEV, I. S.

B. T. R.
Vol. 3 No. 4
Apr. 1954
Wood and Forest Products

(1)

5227* Continuous Calendering of Cardboard Sheets on
Coupled Calenders. (Russian.) I. S. Seleznev. *Bumazhnaia
Promyshlennost*, v. 28, no. 10, Oct. 1953, p. 28-30.
New method with automatic turning of sheets is presented. Dia-
gram.

SELEZNEV, I. V.

9(n) PHASE I BOOK REIMPOSITION 807/2773

Работы по теме термометрии; сборник статей (Термисторы; Collection of Articles) Moscow, Gosenergoizdat, 1959. 259 p. 13,000 copies printed.

Ed. (Title Page): B. S. Botshov, Doctor of Technical Sciences, Professor; Ed. (Inside book): V. A. Petrov; Tech. Ed.: G. I. Matveyev; Editorial Board: B. S. Botshov, Doctor of Technical Sciences, Professor (Chief Ed.), B. F. Sidorov, Candidate of Technical Sciences, M. D. Zaytsev, Engineer, Ye. M. Shugrov, Engineer, and V. I. Yurimov, Engineer.

NOTE: This collection of articles is intended for engineering and technical personnel of plants, OGB, KII and also instructors and students of vuzes.

CONTENT: The book contains articles dealing with problems of manufacture of thermistors and determining thermistor parameters and characteristics. The authors also discuss problems of industrial application of thermistors as control elements. The book is an effort of cooperation by scientists of a number of vuzes, members of KII and engineers of one of the plants (name is not given) of Mosproektorg. No personalities are mentioned. References appear at the end of some articles.

Михайлов, О. Е., Л. С. Панагиряк and М. М. Фишерич. УЗ-1 Temperature Signalling Device.

192

The authors discuss the construction of a temperature signalling device for controlling temperature of bearings of various units of power plants such as boilers, turbines, etc. He describes the principle of its operation and explains the construction of a thermistor heat detector cell. There are 3 references, all Soviet.

Мондигер, Л. Е. Use of Thermistors for Controlling Temperature in Refrigerator Walk-in Cans.

203

The author discusses the experience acquired in using MTR-1 and other types of thermistors for remote control and measuring temperature of refrigerator walk-in cans. He presents circuits used and describes their operation. There are 3 references, all Soviet (including 2 translations).

Романов, Д. Я. Selection of Circuit Elements for Regulating Temperature in Networks With Thermistors on the Basis of Relay Effect

208

The author discusses methods of calculating circuits for regulating temperature in networks with thermistors on the basis of the relay effect. He also explains the concept of relay effect in some types of thermistors. There are 2 references, both Soviet.

Сидин, Л. А. Use of Thermistors in Hydroelectric Devices.

The author discusses a device for measuring average rate of water flow used to determine the average rate of water flow. He describes calculating parameters of heat units of the device. There are 6 references: 4 Soviet and 2 English.

Сидин, Л. А. Use of Thermistors in Automobile Thermometers

220

The author discusses thermistor circuits for controlling temperature of automobile-engine cooling liquid used in some West German countries. There are 5 references, all Soviet (including 1 translation).

CA

SELEZNEV, K. A.

7

Seleznev, K. A.: Kachestvennyi Analiz (Qualitative Analysis). Moscow: Medgiz. 1951. 200 pp.

SELEZNEV, Kuz'ma Alekseyevich; KUVSHINSKIY, M.N., redaktor; YEVDOKIMOVA,
Z.N., tekhnicheskiy redaktor

[Quantitative analysis] Kolichestvennyi analiz. Izd. 2-e, ispr.
i dop. Moskva, Gos. izd-vo med. lit-ry, 1956. 223 p.
(Chemistry, Analytic--Quantitative) (MLRA 9:7)

SELEZNEV, K.G.

Formation of soils with residual Solonetz characteristics in southern
Odessa Province. Pochvovedenie no.3:114-117 Mr '63. (MIRA 16:3)

3. Odesskaya gosudarstvennaya sel'skokhozyaystvennaya opytnaya
stantsiya.

(Odessa Province—Soil formation)

SELEZNEV, Kuz'ma Alekseyevich; STUKOVHIN, N.D., red.

[Analytical chemistry; qualitative semimicroanalysis and quantitative analysis] Analiticheskaya khimiya; kachestvennyi polumikroanaliz i kolichestvennyi analiz. Moskva, Vysshaya shkola, 1963. 287 p. (MIRA 17:5)

1. Gor'kovskiy meditsinskiy institut imeni S.M.Kirova (for Seleznev).

SELEZNEV, K. G.

Cand Agr Sci, Diss --- "Increasing the fertility of the light sod-podzols of Ukrainskoye Poles'ye in connection with the character and rate of decomposition of organic matter". Gorkiy, 1961. 22 pp with graphics, 20 cm (Min of Agr BSSR. White Russian Order of Labor Red Banner Agr Acad), 120 copies, Not for sale (KL, No 9, 1961, p 186, No 24397). [61-54873]

SELEZNEV, K.P., dot sent

Temperature distribution in the cylinder of a gas turbine. Trudy
LPI no.2:11-22 '54. (MIRA 8:8)
(Gas turbines)

SELEZNEV, K.P., dot sent

Temperature distribution in a multistage gas turbine rotor. Trudy
LPI no.2:23-40 '54. (MLRA 8:8)
(Gas turbines)

SELEZNEV, K.P.

3960. DETERMINATION OF TEMPERATURE FIELD IN GAS TURBINE COMPONENTS BY MEANS OF ELECTRIC MODELLING (Energomashinostroenie (Prilozhenie, U.S.S.R.)) Mar. 1956, (3), 8-12). The comparatively simple method described enables the temperature fields of various systems of turbine details to be determined in the planning stage with little loss of time. A study of the data obtained and of the analytical solution of the problem of temperature distribution over a simple surface shows maximum error in temperature determination at the various points to be 1-3%. G.E.A.

3960. DETERMINATION OF TEMPERATURE FIELD IN GAS TURBINE COMPONENTS BY MEANS OF ELECTRIC MODELLING (Energomashinostroenie (Prilozhenie, U.S.S.R.)) Mar. 1956, (3), 8-12). The comparatively simple method described enables the temperature fields of various systems of turbine details to be determined in the planning stage with little loss of time. A study of the data obtained and of the analytical solution of the problem of temperature distribution over a simple surface shows maximum error in temperature determination at the various points to be 1-3%. G.E.A.

Inf 2

PODOBUYEV, Yuriy Sergeyeovich; SELEZNEV, Konstantin Pavlovich;
LOMAKIN, A.A., professor, ~~retsensent~~; ~~ALIYAMOVSKIY, M.I.~~,
inzhener, redaktor; VASIL'YEVA, V.P. redaktor izdatel'stva;
POL'SKAYA, R.G., tekhnicheskiiy redaktor

[Theory and design of axial and centrifugal compressors] Teoriia i
raschet osevykh i tsentrobezhnykh kompressorov. Moskva, Gos.
nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1957. 389 p.
(MLRA 10:5)

(Compressors)

PODOBUYEV, Yu.S.; SELEZNEV, K.P.

Three-dimensional flow in an axial compressor stage with a
reaction degree of $\Omega=0.5$. Trudy LPI no.193:157-167/58.
(MIRA 12:2)

(Compressors)

Seleznov, K.P.

SELEZNEV, K.P., kand. tekhn.nauk; TARANIN, A.I., inzh.

Effect of certain factors on temperature distribution in a gas-turbine
rotor. Energomashinostroenie 4 no.1:21-26 Ja '58. (MIRA 11:1)
(Gas turbines) (Heat--Transmission)

SELEZNEV R.P.
P. 3

PHASE I BOOK EXPLOITATION SOV/3909

Leningrad. Politekhnikheskiy institut

Energomashinostroyeniye (Power-Machinery Construction) Moscow,
Mashgiz, 1960. 163 p. (Series: Its: Trudy, No. 204) Errata
slip inserted. 1,600 copies printed.

Sponsoring Agency: RSP3R. Ministerstvo vysshego i srednego spetsial'-
nogo obrazovaniya.

Resp. Ed.: V.S. Smirnov, Doctor of Technical Sciences, Professor;
Ed.: V.I. Bulanin, Candidate of Technical Sciences, Docent; Tech.
Ed.: P.S. Frumkin; Managing Ed. for Literature on the Design and
Operation of Machinery (Leningrad Division, Mashgiz): F.I. Feti-
sov, Engineer.

PURPOSE: This book is intended for workers at scientific research
institutes and factory design offices. It may also be useful to
students of advanced courses and aspirants specializing in
power-machinery construction.

Card 1/5

Power-Machinery Construction

SOV/3909

COVERAGE: This collection of 17 articles deals with analyses of gas-turbine installations and theoretical and experimental investigations of the operation of power and transportation machinery, including turbines, compressors, and internal-combustion engines. A description is given of recent theoretical and experimental investigations undertaken by the Department of Power-Machinery Construction, Leningradskiy politekhnicheskii institut (Leningrad Polytechnical Institute). The investigations include analyses of parameters for insuring high economy of operation and the perfecting of methods of calculating and designing new power equipment. References follow several of the articles.

TABLE OF CONTENTS:

Preface	3
1. Strakhovich, K.I. Approximate Method for Calculating the Velocity Distribution at the Inlet and Outlet of a Rotor in an Axial Compressor	5
Card 2/5	

Power-Machinery Construction

SOV/3909

2. Seleznev, K.P. On the Flow of an Ideal Gas in a Bladeless Diffuser of a Centrifugal Compressor 24
3. Zysin, V.A. Binary Gas- and Steam-Turbine Systems 29
4. Kalinin, V.F. Fundamental Characteristics of Heat Exchangers for Closed-Type Helium-Driven Turbines 37
5. Bulanin, V.I. Some Features of One Type of Gas-Turbine System 43
6. Arsen'yev, L.V. Calculation of Transition Processes in Gas-Turbine Engines 61
7. Seleznev, K.P. On the Question of Similarity of Temperature Fields in Turbomachinery Elements 67
8. Dmitrevskiy, V.A. On the Determination of the Boundaries of the Operating Regime in Shaftless Diesel-Engine Compressors 77

Card 3/5

ANISIMOV, S.A.; Prinimali uchastiye: Seleznev, K.P., dotsent; RE ~~STIN~~,
P.S., starshy, inzhener

Study of the performance of the wheel of a centrifugal
compressor. Trudy LPI no.221:5-16 '62. (MIRA 15:9)
(Compressors)

ANISIMOV, S.A.; REKSTIN, F.S.; SELEZNEV, K.P.

Effect of the number of blades on the efficiency of a centrifugal
wheel with a single-stage lattice. Trudy LPI no.221:17-31 '62.
(MIRA 15:9)

(Compressors)

ANISIMOV, S.A.; FEKSTIN, F.S.; SELEZNEV, K.P.

Study of the efficiency of centrifugal compressor wheels with
two-stage blade lattices. Trudy LPI no.221:32-46 '62.
(MIRA 15:9)

(Compressors)

GALERKIN, Yu.B.; SELEZNEV, K.P.; Primalni uchastiye: SEREGIN, V.S.,
starshiy mekhanik; VOSTROKNOTOVA, I.; student; LIBENSON, M.,
student

Some results of the work of constructing pressure transmitters
with high angular velocity. Trudy LPI no.221:59-71 '62.
(MIRA 15:9)

(Turbomachines) (Compressors)

SELEZNEV, K.P., kand. tekhn. nauk, dotsent; TARANIN, A.I., inzh.;
PLEKHANOV, V.A., inzh.

Use of electrical modeling in the determination of temperature
fields in the components of steam and gas turbines.
Energomashinostroenie 9 no.10:1-5 0 '63. (MIRA 16:10)

ACCESSION NR: AT4001489

S/2563/63/000/228/0044/0054

AUTHOR: Seleznev, K. P.

TITLE: Temperature field of gas turbine rotor when cooling with air blown through clearances of blade joints

SOURCE: Leningrad. Politeknicheskij institut. Trudy*, no. 228, 1963, 44-54

TOPIC TAGS: gas turbine rotor cooling, turbine blade cooling, stationary gas turbine, turbine rotor temperature field, multistage gas turbine rotor, gas turbine rotor, gas turbine, gas turbine blade, turbine blade, turbine rotor temperature, rotor temperature, multistage gas turbine, multistage turbine

ABSTRACT: Temperature conditions in a gas turbine rotor, into which cooling air was fed through clearances in the shaft joints of the rotor blades, were analyzed to determine the advantages and shortcomings of this design and arrive at optimal parameters. A seamless forged rotor of a multistage gas turbine served as a model for an electro-simulation study on the SEI-01 TsKTI integrator. Several variants were involved (see Table 1 in the Enclosure) and results are tabulated (see Tables 2 and 3 in the Enclosure). Analysis of the results shows that cooling can be accomplished effectively and economically by directing the air (at an optimal temperature to be determined by further studies) at the heavy part of the shaft, the faces of the blades and the chambers between the 1st, 2nd and 3rd blades.

Card 1/9

ACCESSION NR: AT4001489

"Staff members of TsKTI engineer L. D. Zabezhinskiy, senior technician N. N. Brovtsy*n, radio technician A. K. Tishayev, as well as laboratory assistants A. S. Khislovskaya and K. P. Molchanova, participated in this study". Orig. art. has: 3 tables and 6 graphs.

ASSOCIATION: TsKTI

SUBMITTED: 00

DATE ACQ: 25Nov63

ENCL: 07

SUB CODE: MD, PR

NO REF SOV: 006

OTHER: 000

Card 2/8

SELEZNEV, K.P.; SHKARBUL', S.N.

Study of the effect of the form of blade profiles on the structure of flow and efficiency of the rotor wheel of a centrifugal compressor. Trudy LPI no.228:55-62 '63.
(MIRA 17:1)

CHIRIKOV, K.I., doktor tekhn. nauk, red.; TIKHONOV, A.I., inzh.,
red.; TYKISHKIN, V.G., kand. tekhn. nauk, red.

[Thermal condition of the rotors and cylinders of steam
and gas turbines] Teplovoe sostoyanie rotorov i tsilind-
rov parovykh i gazovykh turbin. Moskva, Mashinostroenie,
1964. 282 p. (MIRA 17:11)

L 27780-65 EWT(1)/EPA/EW(f)/EWG(v)/T-2/EPA(bb)-2 Pe-5/Pw-1 Ww
ACCESSION NR: AT5003390 S/2563/64/000/232/0052/0058

32
31
B+1

AUTHOR: Anisimov, S. A.; Seleznev, K. P.

TITLE: The efficiency of centrifugal compressor stages

SOURCE: Leningrad. Politekhnicheskii institut. Trudy, no. 232, 1964. Turbomashiny (Turbomachines), 52-58

TOPIC TAGS: compressor, centrifugal compressor, compressor efficiency, compressor stage efficiency, efficiency calculation

ABSTRACT: Further increases in efficiency of centrifugal compressors may be achieved on the basis of detailed theoretical and experimental studies of the aerodynamics within various elements of the single stages. Starting from the adiabatic efficiency of a stage, the authors studied the theoretical influence of the efficiency of individual parts on the efficiency of the entire stage and the ways in which the total efficiency can be computed from the efficiency of the separate component parts. The results, presented in the form of tables and graphs, indicate that even at the present time optimum designs of centrifugal compressors could approach and exceed the 0.85 level of efficiency. Orig. art. has: 16 formulas, 3

Card 1/2

L 27780-65

ACCESSION NR: AT5003390

figures, and 2 tables.

ASSOCIATION: Leningradskiy politekhnicheskoy institut imeni M. I. Kalinina (Leningrad polytechnic institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: PR

NO REF SOV: 000

OTHER: 000

Card 2/2

L 27781-65 EWT(1)/EPA/EWP(1)/EWG(v)/T-2/EPA(bb) 2 Pg 5/5-1 MW
ACCESSION NR: AT5003391 8/2563/64/000/232/0059/0070

AUTHOR: Anisimov, S. A.; Galerkin, Yu. B.; Reksin, F. S.; Seleznev, K. P.;
Simonov, A. M.

43
42
BT

TITLE: The design of centrifugal compressors²⁷

SOURCE: Leningrad. Politeknicheskii institut. Trudy, no. 232, 1964. Turbomashiny (Turbomachines), 59-70

TOPIC TAGS: compressor, centrifugal compressor, compressor design, centrifugal compressor parameter, Reynolds number, Mach number

ABSTRACT: The paper discusses modern methods for the design of centrifugal compressors and proposes a new method based on the utilization of experimentally obtained criterional parameters of the individual stage elements. Certain deliberations concerning the optimum design of the basic elements of a centrifugal stage based on theoretical and experimental work at the authors' Laboratory are included. Further tests are now in progress. They should yield better data concerning the dependence of compressor parameters on the Reynolds and Mach numbers and other significant factors, and the mutual influence of these factors. This, in

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L 27781-65

ACCESSION NR: AT5003391

conjunction with the theory outlined in the paper, will result in detailed recommendations concerning the design of all the elements of a stage and of an entire compressor. Orig. art. has: 11 formulas and 2 figures.

ASSOCIATION: Leningradskiy politekhnicheskoy institut imeni M. I. Kalinina (Leningrad polytechnical institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: PR

NO REF SOV: 029

OTHER: 000

Card 2/2

L 52090-65 — EPR/EWP(k)/EWT(m)/EPA(bb)-2/T-2/EWP(w)/EWP(r)/EWP(s) PI-4
ACCESSION NR: AP5015259 EM UR/0286/65/000/049/0050/0050

AUTHORS: Anisimov, S. A.; Galerkin, Yu. B.; Rakstin, F. S.; Seleznev, K. P.; 3.5
Khentalov, V. I.

TITLE: Blade diffuser for turbines. Class 27, No. 170606

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 50

TOPIC TAGS: turbine, diffuser, turbine blade ✓

ABSTRACT: This Author Certificate presents a blade diffuser for turbines of, for instance, a centrifugal or a diagonal compressor, with flaring radial flow ducts in a ring grid (see Fig. 1 on the Enclosure). To broaden the range of the consistent performance of turbines, the grid forms several stages and carries full-length blades. Shorter blades are mounted between the full-length ones at each stage, and the outer edges of all blades lie on a common circumference. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 29Mar63 ENCL: 01 SUB CODE: IE, PR

NO REF SOV: 000 OTHER: 000

Card 1/2

L 52090-65
ACCESSION NR: AP5015269

ENCLOSURE: 01

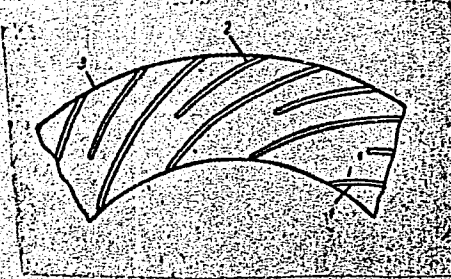


Fig. 1.

1- full-length blades; 2- short blades; 3- common circumference

Card ^{8 JB} 2/2

L 11631-66 EWT(d)/EPA/EWT(1)/EWP(f)/EWP(v)/T-2/EWP(k)/EWP(h)/EWP(1) WW

ACC NR: AT6001023

SOURCE CODE: UR/2563/65/000/247/0064/0074

AUTHOR: Galerkin, Yu. B.; Zykov, V. I.; Seleznev, K. P. ^{4/4/52} 81
B+1

ORG: Leningrad Polytechnic Institute (Leningradskiy politekhnicheskiy institut)

TITLE: Investigation of interstage passages in a centrifugal compressor section

SOURCE: Leningrad, Politekhnicheskiy institut. Trudy, no. 247, 1965. Turbomashiny (Turbomachines), 64-74

TOPIC TAGS: compressor, centrifugal compressor, compressor design, compressor stage, model test, test stand, air flow, flow field/SSP-1 test stand, ETsK-3 test stand

ABSTRACT: The effects of the meridional profile of interstage passages on the performance of a centrifugal compressor section were investigated. Seven variations of the initial profile in which only the length L was changed ($L = 204-106$ mm) with other parameters held constant ($b_0 = 35.6$, $r_1 = 17$, $R_1 = 55$, $r_2 = 10$, $R_2 = 36$ mm) and two types with slightly different geometry were tested. Full scale stage characteristics were obtained on test stand ETsK-3 (at 156, 202, and 253 m/sec). Wooden models (five times actual size) were used to study the flow, using electric analog techniques (EGDA) and static blower tests on test stand SSP-1. The equipment and methods used were described previously by Yu. B. Galerkin, and F. S. Rekstin (Eksperimental'naya ustanovka dlya issledovaniya tsentrobezhnykh stupeney.

Card 1/2

L 11631-66

ACC NR: AT6001023

Nauchno-tekhnicheskiy informatsionny byul. LPI, Energomashinostroyeniye, 1961, No. 5, 25-32). It was found that both the electrical analog and the static blower tests were useful in studying the flow fields. A large amount of data was obtained on the effects of l_0/b_0 ratios and of r_1 and r_2 on the flow field, but only sample data are presented. The actual full scale tests of the compressor stage gave only the overall effects, so that the model tests are useful in determining the relative importance of individual changes. It is concluded that the axial length could be decreased by 20% without lowering performance characteristics. Further work is in progress to develop a short profile which will have minimum flow separation. Orig. art. has: 5 figures.

SUB CODE: 13, 20 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 001

Card 2/2 *gc*

L 11650-66 EPA/EWP(w)/EWP(f)/ETC(m) WW/EM

ACC NR: AT6001025

SOURCE CODE: UR/2563/65/000/247/0086/0093

AUTHOR: Nikitin, A. A.; Seleznev, K. P.; Shkarbul', S. N.

50
B+

ORG: Leningrad Polytechnic Institut im. M. I. Kalinin (Leningradskiy politekhnicheskiy institut)

TITLE: Some results of studies of centrifugal compressor inlets

SOURCE: Leningrad. Politekhnicheskii institut. Trudy, no. 247, 1965. Turbomashiny (Turbomachines), 86-93

TOPIC TAGS: compressor, centrifugal compressor, jet engine, turbojet engine

ABSTRACT: In designing centrifugal-compressor²³ inlets, it is desirable to select a geometry in which losses are minimal and the flow field is uniform. The calculation of inlet geometry, however, presents several difficulties, since it involves flow deflection from the radial to the axial direction and the effect on flow structure of the wake caused by the shaft.¹⁰ At the Leningrad Polytechnic Institute im. M. I. Kalinin, the flow of an inviscid incompressible fluid was studied by an electro-hydrodynamic-analog method using a wooden model impregnated with paraffin, copper plate electrodes, graphite probes, and diluted H₂SO₄ as an electrolyte for determining the flow field. The results showed that the velocity field was highly nonuniform so that an inlet designed according to present design recommendations is inadequate. Further experiments were made with an annular inlet having the form of a helical chamber. From the total and static pressure measure-

Card 1/2

2

L 11650-66

ACC NR: AT6001025

ments, pressure distribution curves were obtained and several conclusions concerning the inlet geometry were drawn. Orig. art. has: 4 figures. [PV]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 4175

Card 2/2

L 45973-66 EWT(1)/EWT(m)/EWP(k)/I-2/EWP(w)/EWP(f)/EWP(v) IJP(c) WW/EM/GD
ACC NR: AT6026436 (N) SOURCE CODE: UR/0000/66/000/000/0154/0166

AUTHOR: Seleznev, K. P.; Galerkin, Yu. B.; Anisimov, S. A.; Reksin, F. S.; Patrin,
Yu. V.; Simonov, A. M.; Shkarbul', S. N.

ORG: None

TITLE: Results of an investigation of impellers in centrifugal compressors

SOURCE: Leningrad. Nauchno-issledovatel'skiy i konstruktorskiy institut khimicheskogo mashinostroyeniya. Tsentrobezhnyye kompressornyye mashiny (Centrifugal compressors). Moscow, Izd-vo Mashinostroyeniye, 1966, 154-166

TOPIC TAGS: centrifugal compressor, compressor blade, aerodynamic characteristic

ABSTRACT: The authors review the results of experimental and theoretical studies on improving the aerodynamic characteristics of impellers in centrifugal compressors. It is shown that impellers should be designed with a linear change in the cross sectional area with respect to channel length to improve flow characteristics. The number of blades should be selected on the basis of the optimum apex angle for the channels between blades. Experimental investigation of a large number of single-stage impellers with exit angles of 20, 49 and 90° showed that optimum impellers from the standpoint of maximum efficiency have 8-12, 16-18 and 28 or more blades² respectively. However, stability is reduced with an increase in the number of blades so that two-

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stage cascades are preferable for high-efficiency impellers with a large number of blades. Recommendations are made for optimizing the operation parameters of various types of centrifugal compressors on the basis of recent experimental research. Orig. art. has: 6 figures.

SUB CODE: 13/ SUBM DATE: 08Jan66/ ORIG REF: 009/ OTH REF: 003

Card 2/2 hs

ACC NR: AP6031400

SOURCE CODE: UR/0114/66/000/009/0026/0029

AUTHOR: Nikitin, A. A. (Candidate of technical sciences); ~~Seleznev,~~
K. P. (Doctor of technical sciences, Professor); Shkarbul', S. N.
(Docent, Candidate of technical sciences)

ORG: none

TITLE: Investigation of centrifugal compressor inlet ducts

SOURCE: Energomashinostroyeniye, no. 9, 1966, 26-29

TOPIC TAGS: ~~centrifugal~~ compressor inlet, compressor performance,
inlet duct, centrifugal compressor, *compressor design*

ABSTRACT: Available design recommendations do not ensure the calculation of aerodynamically ideal inlet ducts for centrifugal compressors. The final duct contour is selected only after testing and modifications of models. Since the development of calculation methods for compressor inlet ducts is quite difficult, the Leningrad Polytechnic Institute (LPI) has conducted systematic experimental investigations of a series of centrifugal compressor inlet ducts. The geometry of tested ducts is shown in Fig. 1. The object of the investigations was to determine the effect of the geometric parameter K_F (where $K_F = F_K/F_0$, F_K = cross sectional area of the cylindrical portion of the inlet and F_0 = exit

Card 1/3

UDC: 62-224.7:621.515.001.5

ACC NR: AP6031400

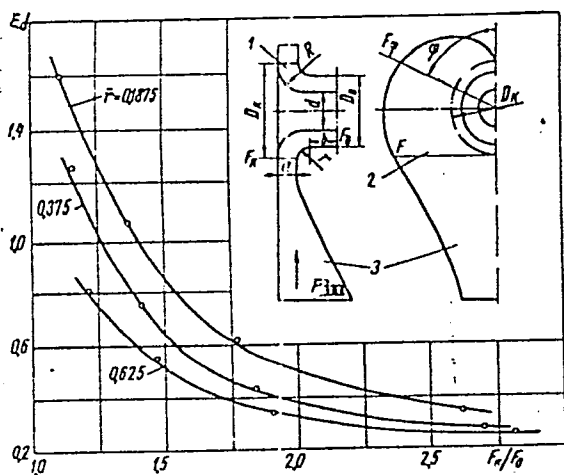


Fig. 1. Dependence of the drag coefficient on geometric parameter K_p at various values of \bar{r} ; $R = 1.250$; $b/D_0 = 0.555$; $\lambda_0 = 0.15$.

1 - Curvilinear axisymmetric convergent duct; 2 - helical chamber; 3 - feed duct.

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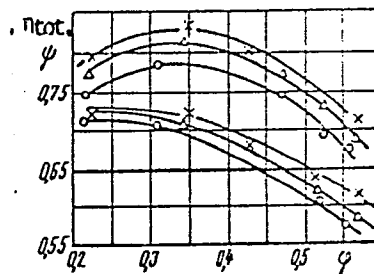


Fig. 2. Effect of inlet duct on stage characteristics

x - stage with axial inlet duct; o and Δ - improved inlet ducts.

ACC NR: AP6031400

cross sectional area of the inlet) on inlet duct losses. Tests were conducted in the range $K_F = 1.15-2.83$ at a constant value of relative radius $\bar{R} = R/a$ and three values of $\bar{r} = r/a$ ($\bar{r} = 0.1875, 0.375, \text{ and } 0.625$). The obtained results show that an increase in K_F improves the flow characteristics in curvilinear ducts and reduces possibilities of flow separation on a surface of radius \bar{r} . The maximum reduction in the drag coefficient ξ_d was found to be at $K_F \approx 2.0$. Based on experimental data a calculation method was proposed which improves the efficiency of a compressor stage by 2-3%. The effect of the inlet duct on compressor stage characteristics is shown in Fig. 2. Orig. art. has: 6 figures and 5 formulas.

[WA-76]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 007/

Card 3/3

SELEZNEV, L.; GOROKHOVSKIY, S., glavnyy inzhener.

Work experience of the Taganrog electric power network. Zhil.-kom.
khoz. 4 no.4:17-18 '54. (MIRA 7:7)

1. Direktor Taganrogskoy gorodskoy elektroseti (for Seleznev)
(Taganrog--Electric networks) (Electric networks--Taganrog)

SELEZNEV, L.

Operate unused equipment. Fin.SSSR 20 no.4:51-52 Ap '59.
(MIRA 12:6)

1. Starshiy revizor tresta "Koksokhimmontazh."
(Construction industry)

L 33520-65 EWP(e)/EPA(s)-2/EWI(m)/EPF(c)/EPE(n)-2/EWA(d)/EPR/EPA(w)-2/T/EWP(t)/
EWP(k)/EWP(b)/EWI(c) Pf-4/Pr-4/Ps-4/Pt-10/Pu-4/Pab-10 TIP(c) WW/JD/BN/JG/WH
ACCESSION NR: R5005692 S/0276/64/000/009/V007/V007

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya. Svodnyy tom, Abs. 9V44

80
B

AUTHOR: Seredin, P. I.; Seleznev, L. A.; Kalinin, K. K.

TITLE: Experimental forging of molybdenum

CITED SOURCE: Sb. tr. Vses. n. -1. in-t tverdykh splavov, no. 5, 1964, 225-234

TOPIC TAGS: powder metallurgy, molybdenum cermet, ingot mechanical property,
plastic deformation, hot twist test, drop forging, reduction level

TRANSLATION: The authors studied the effects of plastic deformation on the mechanical
properties of Mo ingots produced by hydraulic pressure molding or low temperature
sintering. Ingots measuring 60 x 200 x 250 mm were used in a hot twist test and results
were verified by drop forging. Optimal forging temperature for Mo was 1150-1200C
furnace temperature 1300C. The best mechanical properties in forged Mo cermets were
obtained at a total reduction of 45%. Peak compacting of Mo is also attained at the same
reduction level. Bibl. with 6 titles; 10 illustrations. I. Gendlina

SUB CODE: MM, E ENCL: 00

Card 1/1

L 2849-66 EWT(n)/EWP(w)/T/EWP(t)/EWP(b)/EWA(c) LJP(c) JD/JG

ACCESSION NR: AT5022902

UR/2776/65/000/043/0164/0168

56
53
BT1

AUTHOR: Seleznev, L. A.; Savin, A. V.

44,55 44,55

TITLE: Hot twist tests of sintered molybdenum

27

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metal-
lurgii. Sbornik khrudov, no. 43, 1965. Poroshkovaya metallurgiya (Powder metal-
lurgy), 164-168

44,55 16

TOPIC TAGS: torsion strength, molybdenum, metal powder, sintering, deformability, brittleness, ductility, aluminum oxide

ABSTRACT: The quality of sintered molybdenum briquets destined for hot deformation is usually evaluated according to their specific weight, shrinkage during sintering, and state of surface. These criteria, however, do not provide an adequate idea of their technological deformability, which is determined by plasticity and deformation resistance. Hence, the authors investigated the technological deformability of sintered molybdenum by means of the hot twist method, which normally is employed to test high-temperature alloys and metals. The specimens were prepared from molybdenum powder reduced under different conditions: in a

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ACCESSION NR: AT5022902

steel-tube furnace at 900°C (group 1) and in a muffle furnace -- the muffle being of a high-alumina material -- at 1000°C (group 2). The powder in group 2 was coarse-grained, since its reduction was carried out at a higher temperature, and had a high content of alumina owing to its contamination by the muffle material. Rods of sintered molybdenum were subjected to hot twist tests in a K-50 machine which, for this purpose, was equipped with an electric molybdenum-heater furnace operating at temperatures of up to 1600°C in a hydrogen atmosphere (Fig. 1). The dimensions of the selected standard specimens (d = 10 mm, rated length 100 mm) made it possible to employ a single, fixed scale with a maximum torque of 98.1 joules (10 kg-m) throughout the tests in the 20-1600°C temperature range. Curves of the number of twists required for fracture (characterizing the plasticity of the material) were plotted as a function of temperature (Fig. 2) and were found to differ sharply for each group: for group 1 they had a distinct peak at 1100°C, whereas for group 2 the peak is shifted in the direction of higher temperatures and extends over a wider temperature interval. At room temperature brittle fracture is observed for both groups; at 200-1150°C ductile fracture is observed for group 1 and at 150-1400°C for group 2. The differences in the behavior of sintered Mo in both groups during hot twist tests apparently exist because group

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ACCESSION NR: AT5022902

2 contains a sizable proportion of aluminum oxide, which contributes to retarding the recrystallization processes and hence also to broadening the temperature range of plasticity. Thus, the hot twist method has proved its worth as a criterion for evaluating the technological deformability of sintered molybdenum. Orig. art. has: 3 figures, 2 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 02

SUB CODE: MM

NO REF SOV: 002

OTHER: 002

Card 3/5

L 2849-66

ACCESSION NR: AT50:2902

ENCLOSURE: 01 /

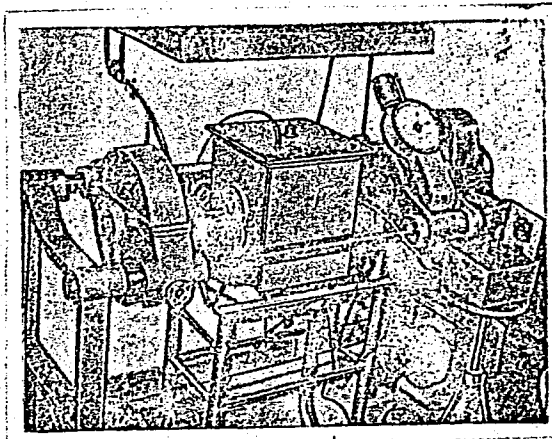


Fig. 1. General view of torsional testing machine

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L 2849-66

ACCESSION NR: AT50:2902

ENCLOSURE: 02

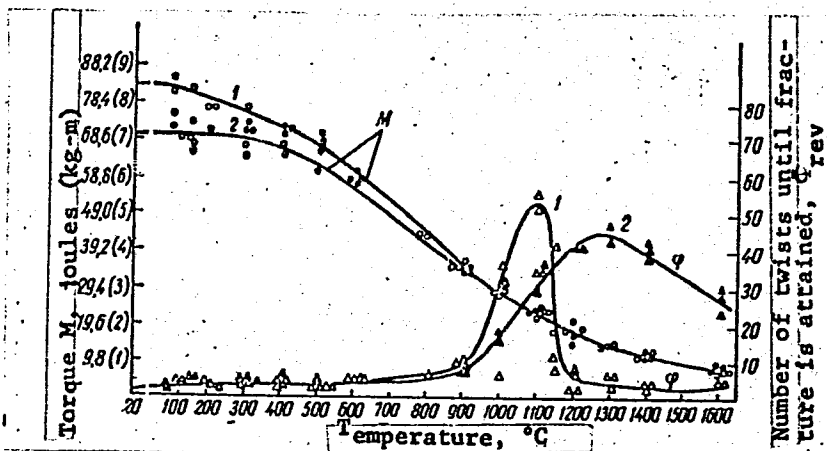


Fig. 2. Curves of variation in torque M and number of twists of sintered Mo rods as a function of temperature

BVK
Card 5/5

Seleznov, L.A.

PHASE I BOOK EXPLOITATION SOV/1164

Vsesoyuznyy sovetskuyu po splyava metallu. 1st, Moscow, 1957
Booklets serially 1 splyavi tsvady... (Rare Metals and Alloy Transactions of the
First All-Union Conference on Rare-Metal Alloys) Moscow, Metallurgizdat, 1960.
Xiv p. 2,150 copies printed.

Sponsoring Agency: Akademiya nauk SSSR, Institut metallurgii; USSR
Klassifikatsiya po redkimi metallam pri mashino-stroitelstvenno kometate.
M. J. I. I. Sopotnikov, Ed. of Publishing House: O.K. Kamyeva; Tech. Ed. I
P. G. Iakob'ev.

PURPOSE: This collection of articles is intended for metallurgical engineers,
physicists, and workers in the machine-building and radio-engineering industries.
It may also be used by students of schools of higher education.

CONTENTS: The collection contains technical papers which were presented and dis-
cussed at the 1st All-Union Conference on Rare-Metal Alloys, held in the Ir-
kutsk region, Irkutsk, Academy of Science USSR in November 1957. Results of
investigations of rare-metal alloys, titanium and copper-base alloys with ad-
ditions of rare metals are presented and discussed along with investigations of
rhenium, vanadium, niobium, and their alloys. The effect of rare-earth metals
on properties of magnesium alloys and zirconium is analyzed. The uses of rhenium
as a catalyst for synthesis of high-strength materials, and method of suitable for
the study of such materials are discussed. Also, the ef-
fect of the addition of certain elements on the properties of heat-resistant
steel is examined and alloys with special physical properties (particularly
semiconductive alloys) are discussed. No personalities are mentioned. Soviet
and non-Soviet references accompany some of the articles.

PART II. TITANIUM AND COPPER-BASE
ALLOYS WITH RARE-EARTH ADDITIONS

Podkuznetsov, I.P., Demchenko, and V.Y. Yalovskiy. Investigations of Alloys
of the Titanium-Niobium-Aluminum and Titanium-Polybismuth-Aluminum Systems
36

Kal'tsev, M.Y., G.P. Baidakov, and T.S. A. Kuznetsov. Effect of Rare Metals
on the Oxidability of Titanium and of Some Titanium Alloys 42

Mol'tsov, M.T., and V. A. Sviridov. Investigation of Titanium-Aluminum-
Vanadium Ternary Alloy Systems 52

Baidakov, G.P., G.S. Khromova, I.S. Kozlovskiy, L.I. Solodovnik, and A.T. Mol't-
sov. Heat-Resistant Ti-Al-Cu-Co-Alloys with Vanadium and Copper-Cobalt-Ni-Ti-
Iridium System 63

Rare Metals (Cont.) SOV/1164

PART III. RHENIUM, VANADIUM, NIOBIUM,
AND ZIRCONIUM

Balashin, A.V., I.G. Anisimov, and A.I. Tolstopyatov. Rhenium as a
Impregnating Catalyst 72

Zhilina, M.A., and Ya. M. Sviridov. Rhenium Alloys 80

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plating With Rhenium 111

Yegor, L.V., and M.D. Peruchinskaya. Electrical Contacts Made of Rhenium 122

Shubert, Ya.A. The Possibility of Using Alloys on Tungsten With Rhenium
for Making Contacts for Microtube Electrical Equipment 133

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Alloys Based on Them 136

Andreyeva, V.Y., A.I. Gubarev, Ya. A. Kuznetsov, L.I. Solodovnik, and M.T.
Kal'tsev. Corrosion Resistance of Aluminum and Its Alloys 136

SELEZNEV, Leonid Ivanovich; YEFIFANOV, M.P., red.; YERKHOVA, Ye.A.,
tekhn. red.

[International economic relations of Czechoslovakia] Mezhdunarodnye ekonomicheskie otnosheniia Chekhoslovakii. Moskva, Izd-vo mezhdunarodnykh otnoshenii, 1962. 127 p.
(MIRA 15:5)

(Czechoslovakia--Foreign economic relations)
(Czechoslovakia--Industries)

PHASE I BOOK EXPLOITATION

SOV/5452

Donskoy, Ya. Ye., G.I. Kardash, and I.P. Lyalyuk, eds.

Mekhanizatsiya i avtomatizatsiya; sbornik statey ob opyte vnedreniya mekhanizatsii i avtomatizatsii na khar'kovskikh mashinostroitel'nykh zavodakh (Mechanization and Automation; Collection of Articles on the Introduction of Mechanization and Automation in Khar'kov Machinery-Manufacturing Plants) [Khar'kov] Khar'kovskoye knizhnoye izd-vo, 1960. 373 p. 3,900 copies printed.

Editorial Board: S.A. Vorob'yev, Candidate of Technical Sciences; Chairman of the Editorial Board: P.I. Zmaga, Engineer; A.A. Kablov, Engineer, V.I. Kuzubov, Engineer, A. Ye. Leonov, Docent, A.I. Tupitsyn, Candidate of Technical Sciences, and S.M. Khmara, Candidate of Technical Sciences; Eds.: Ya. Ye. Donskoy, G.I. Kardash, and I.P. Lyalyuk; Tech. Ed.: M.I. Limanova.

PURPOSE: This collection of articles is intended for technical and scientific personnel, outstanding workers, and shock workers of communist labor.

COVERAGE: The multifaceted experience of Khar'kov enterprises in the mechanization, automation, and improvement of manufacturing processes is generalized.

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Mechanization and Automation (Cont.)

SOV/5452

The development of new machines, instruments, and production methods is considered and attention is given to newly established enterprises, and to the introduction of telemechanics in the Khar'kov gas-system management. By including concrete examples and facts, the authors of the various articles attempt to demonstrate the achievements of the Khar'kov industrial complex in fulfilling the resolutions of the June (1959) and July (1960) Plenums of the Central Committee of the Communist Party of the Soviet Union. No personalities are mentioned. There are no references.

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Mechanization and Automation (Cont.)

SOV/5452

- Seleznev, L.P. [Deputy Chief Engineer of the Khar'kovskiy Traktorny Zavod -- Khar'kov Tractor Plant imeni Ordzhonikidze], and V.V. Biblik [Chief Process Engineer of the plant]. Mechanization and Automation in a Tractor Plant 60
- Shubenko-Shubin, L.A. [Corresponding Member of the Academy of Sciences of the UkrSSR, Chief Designer of the Khar'kovskiy turbinny zavod -- Khar'kov Turbine Plant]. The Development of Steam-Turbine Building at the Khar'kov Turbine Plant imeni Kirov 79
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Mechanization and Automation (Cont.)

SOV/5452

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- Zil'ber, A.G. [Chief Process Engineer of the "Svet shakhtera" Plant]. For Mechanization in Coal Mining 197

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