

S/072/60/000/010/003/004  
B021/B058

AUTHORS: Vargin, V. V., Gutorova, L. L.

TITLE: Glasses of the System  $\text{Na}_2\text{O} - \text{TiO}_2 - \text{SiO}_2$  as Basis of Enamels  
for Aluminum

PERIODICAL: Steklo i keramika, 1960, No. 10, pp. 22 - 25

TEXT: The authors worked out lead enamels for aluminum, which met all requirements. Leadless enamels should, however, be preferred because of the deleterious action of lead compounds. V. V. Vargin and M. V. Serebryakova also worked in this field. The present paper deals with further investigations of leadless, thinly liquid silica glasses and the preparation of high-quality industrial enamels for aluminum. Titanium dioxide reduces the viscosity, increases the resistance against water and acid and increases the light refraction and reflection. For their experiments, the authors melted a number of glasses of the composition  $\text{Na}_2\text{O} \cdot 2(\text{SiO}_2 + \text{TiO}_2)$  and with varying  $\text{TiO}_2$  content. A. V. Senderovich, Candidate for Diploma, and A. F. Kurbatova, Laboratory Assistant, participated in these

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Glasses of the System  $\text{Na}_2\text{O} - \text{TiO}_2 - \text{SiO}_2$  as  
Basis of Enamels for Aluminum

S/072/60/000/010/003/004  
B021/B058

experiments. The fusibility was determined by the method of the Chair for Glass of the Leningradskiy tekhnologicheskiy institut imeni Lensoveta (Leningrad Technological Institute imeni Lensovet) (Fig. 1). Glass No. 13 was synthetically produced on the basis of the results. At a temperature of  $570^{\circ}\text{C}$ , it has a good flow on aluminum and has a sufficient resistance against water, acetic acid (4%) and citric acid (10%). The results of the determination of chemical stability and the fusibility of the glasses are shown in Figs. 2 and 3. Enamel compositions for aluminum were worked out on this basis for the practice, and they are tabulated as follows:

Oxide	Percent by weight	Molecular percent
$\text{SiO}_2$	36.6	38.0
$\text{TiO}_2$	24.7	19.3
$\text{B}_2\text{O}_3$	4.0	3.5
$\text{Na}_2\text{O}$	30.7	30.8
$\text{Li}_2\text{O}$	4.0	8.4

The introduction of lithium oxide and boric anhydride in limited

Card 2/3

GUTOROVA, L. L.

PHASE I BOOK EXPLOITATION

SOV/6060

Vargin, V. V., Professor, ed.

Emalirovaniye metallicheskikh izdeliy (Enameling of Metal Articles). Moscow,  
Mashgiz, 1962. 546 p. Errata slip inserted. 7500 copies printed.

Reviewer: A. S. Ragozin, Engineer; Ed.: M. V. Serebryakova, Engineer; Eds.  
of Publishing House: I. A. Borodulina, A. I. Varkovetskaya, and T. L. Ley-  
kina; Tech. Ed.: L. V. Shchetinina; Managing Ed. for Literature on Machin-  
ery Manufacture (Leningrad Division, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for specialists in enameling, technical person-  
nel of plants, and personnel of scientific research laboratories and institutes.  
It can also be used by teachers and students of schools of higher education.

COVERAGE: The book provides a brief discussion on raw materials and proc-  
esses for melting enamels, describes in detail furnaces for melting enamels.

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SOV/6060

Enameling of Metal Articles

and offers some recommendations for selection and calculation of furnaces. A special section [Ch. IV, sect. 8] on heat-resistant coatings is included. A flowsheet is given for centralized production of enamels. The properties and preparation of slips are also comprehensively described. The production of new enameled products such as pipelines, architectural and building materials, and aluminum articles is described. Individual chapters were written both by plant personnel and by technical personnel of scientific research institutes and schools of higher education. [See: Table of Contents.] No personalities are mentioned. There are 638 references, mainly Soviet, with many English and some German.

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AVAILABLE: Library of Congress	BN/pw/jk
SUBJECT: Metals and Metallurgy	10-31-62
Card 4/4	

VARGIN, Vladimir Vladimirovich; GUTOROVA, Lyubov' L'vovna;  
MAZURIN, Oleg Vsevolodovich; KHODIKEL', Yevgeniya  
Pavlovna; PEVZNER, B.Z., red.

[Steel enameled electroluminescent panels developed by  
the Leningrad Technological Institute in 1963] Stal'nye  
emalirovannye elektroluminestsentnye paneli LTI 1963  
goda. Leningrad, 1963. 20 p. (Leningradskii dom nauchno-  
tekhnicheskoi propagandy. Obmen peredovym opyтом. Seriia:  
Zashchita metallov ot korozii, iznosostoikie antifriktions-  
nye i dekorativnye pokrytiia, no.8) (MIRA 17:5)

VARGIN, V.V., prof., doktor tekhn. nauk; ANTONOVA, Ye.A., kand. tekhn. nauk; GUTOROVA, L.L., st. nauchn. sotr.; LITVINOVA, Ye.P., kand. tekhn. nauk; LUCHINSKIY, V.V., inzh.; MAZUREK, Yu.V., kand. tekhn. nauk; SENDEROVICH, V.Ya., kand. tekhn. nauk; SEREBRYAKOVA, M.V., st. nauchn. sotr.

[Technology of enamels and the enameling of metals]  
Tekhnologiya emali i emalirovaniia metallov. Moskva,  
Stroiizdat, 1965. 315 p. (MIRA 18:5)

POKROVSKAYA, M.P.; KRASKINA, N.A.; GUTOROVA, N.M.; LEVENSON, V.I.; ZHUKOV,  
V.G.; ALLILUYEV, A.P.

Cytologic study of the process of recovery in animals immunized  
by Vi antigen and infected by virulent typhoid fever bacilli.  
Zhur. mikrobiol., epid. i immun. 40 no.9:79-82 S'63.

(MIRA 17:5)

1. Iz Moskovskogo instituta epidemiologii i mikrobiologii.

KUVMAN, G.Ya.; PRADKINA, M.D.; GUTOROVA, N.M.

Dried hemolyzed blood as a stimulator of growth of Pasteurella pestis. Zhur.mikrobiol.epid.i immun no.5:82-85 My '55. (MIRA 8:7)

1. Iz laboratorii osobo opasnykh infedtsii (zav.-prof. M.P.Pokrovskaya) Gosudarstvennogo kontrol'nogo instituta imeni Tarsasevicha (dir. S.I.Didenko).

(PASTEURELLA PESTIS, culture,  
growth stimulation with dried hemolyzed blood)

(BLOOD,  
hemolyzed dried blood, stimulation of growth of Pasteurella pestis)

Gutorova, N.M.

KIVMAN, G.Ya.; PRYADKINA, M.D.; GUTOROVA, N.M.

Preparation for the detection and stimulation of growth of Vibrio comma. Zhur. mikrobiol. epid. i immun. no.12;61-66 D '55. (MLRA 9:5)

1. Iz laboratorii Gosudarstvennogo kontrol'nogo instituta sывороток i вакцин имени L.A. Tarasevicha (dir.-S.I. Didenko)

(VIBRIO COMMA, culture,

medium containing *Bacillus mesentericus* filtrates  
for detection & stimulation of growth.)

(BACILLUS,

*mesentericus*, filtrates in culture media for detection  
& stimulation of growth of *Vibrio comma*)

(CULTURE MEDIA,

for *Vibrio comma*, eff. of *Bacillus mesentericus* filtrates  
in detection & stimulation of growth)

POKROVSKAYA, M.P.; MAKARENKO, I.G.; KRASKINA, N.A.; BRAUDE, N.I.;  
PRYADKINA, M.D.; GUTOROVA, N.M.

Significance of cytochemical investigations in the study of  
immunological problems. Zhur.mikrobiol.epid. i imun. 30 no.1:  
5-11 Ja '58. (MIRA 12:3)

1. Iz Gosudarstvennogo kontrol'nogo instituta meditsinskikh biolo-  
gicheskikh preparatov imeni Tarasevicha.  
(IMMUNITY,  
cytochem. aspects (Eng))

... "Technical Ethics of Study of the Medical Effects of Radiation"

report submitted at the 1971 All-Japan Conference of Radiologists, Rheumatologists and Infectiousists, 1971.

POKROVSKAYA, M.P.; KAGANOVA, L.S. [deceased]; VZOKOV, V.I. [deceased];  
KOCHEV'YAN, O.N.; GRIBANOVA, K.V.; KOTLYAROVA, R.I.; GUTOROVA, N.M.

Anabiosis as a factor in preserving the useful properties of  
microorganisms for a prolonged period. Trudy IEM no.7:70-95'60  
(MIRA 16:8)

(CRYPTOBIOSIS) (MICROORGANISMS—DRYING)

POKROVSKAYA, M.P.; KRASKINA, N.A.; GUTOROVA, N.M.; LEVENSON, V.I., ZHUKOV, V.G.  
ALLILUYEV, A.P.

Cytological study of the process of immunogenesis following administration  
of the Vi-antigen of typhoid fever bacteria. Report No. 1. Zhur.  
mikrobiol., epid. i immun. 40 no. 8;9-14 Ag '63. (MIRA 17:9)

1. Iz Moskovskogo instituta epidemiologii i mikrobiologii.

POKROVSKAYA, M.P.; FASKINA, N.A.; LEVONSON, V.I.; GUDROVA, N.M.; BRAUDE, N.I.

Morphology and nomenclature of immunologically competent cells of  
lymphoid tissue. Zhurn.mikrobiol., epid. i imman. 42 no.3:8-13  
Mr '65. (MIRA 18:6)

I. Moskovskiy institut epidemiologii i mikrobiologii.

GUTOROVA, O.P.

Percentage increases in the basic heat losses by vertical  
enclosures for the coastal districts of the Maritime  
Territory. Sbor. nauch. rab. DVNIIS no.3:66-74 '62.  
(MIRA 17:5)

BVNIIS, Akad. SUDOMAKA, C.P.

Characteristics of the climate of the Maritime Territory  
and accounting for them in the planning of buildings.  
Sbor. nauch. rab. DVNIIS no.3475-86 '62.

LASUNOV, N.A., ch.v., red.; MOROZOVA, M.P., red.; GUTOROVA, Y.G.,  
red.; ZHILTYAYEVA, A.Y., red.; KONERASHKINA, A.M., red.;  
OKROKOVA, A.A., red.; USHAKOVA, P.N., red.

[Regulations for the design, installation and safe opera-  
tion of elevators. Compulsory for all ministries and  
services] Pravila ustroistva i bezopasnoi ekspluatatsii  
liftov. Obiazatel'nyi dlia vsekh ministerstv i vedomstv.  
Moskva, Nedra, 1965. 73 p.  
(MLR 18:8)

1. Russia (1923-- U.S.S.R.) Komitet po nadzoru za bezopas-  
nym vedeniyem rabot v promyshlennosti i gornomu nadzoru.

ACC NR: AP6029055

SEARCH CODE: UR/041.8/66/COC/014/0082/0082

INVENTOR: Tursunov, A. V.; Gutorova, V. L.; Kondrashov, A. I.; Pilyushenko, V. L.

ORG: none

TITLE: Structural steel for use at low temperature. Class 40, No. 183946.  
[announced by the Scientific Research Institute of Ferrous Metallurgy (Nauchno-  
issledovatel'skiy institut chernoy metallurgii)]

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 82

TOPIC TAGS: cold brittleness, structural steel, cold resistant steel, silicon containing steel, manganese containing steel, tungsten containing steel

ABSTRACT: This Author Certificate introduces a structural steel for use at low temperature which contains silicon and manganese. In order to decrease the susceptibility to cold brittleness, the steel has following composition: 0.32—0.40% C, 0.17—0.3% Si, 1.00—1.30% Mn, 0.2—0.35% W, up to 0.05% Ti, up to 0.05% Al, up to 0.035% S, and up to 0.035% P. [WW]

SUB CODE: 11/ SUBM DATE: 09Oct64/AT&T ACCESS: Secs

Card 1/1

UDC: 669.15-194.2

BARANOVA,N.M.; BASS, Yu.B.; BOGDANOVICH, V.V.; VIL'GOS, Ye.F.; GRAZHDANTSEV, I.I.; GRYAZNOV, V.I.; GUTOROVA, Ye.D.; KABRIZON, V.M.; MOLYAVKO, G.I.; MOROKHOVSKAYA, M.S.; NOSOVSKIY, M.F.; ROMODANOVA, M.P.; SOSNOV, A.A.; SHEVCHENKO, Ye.S.; USENKO, I.S.; Prinimali uchastiye: BONDAR', A.G., inzh.-gidrogeolog; SACHENKO-SAKUN, V.M., st. topograf; SHELUKHINA, A.V., st. tekhnik-geolog; STOPIK, M.A., st. tekhnik-geolog; REUTOVSKAYA, E.A., tekhnik; BETEKHTIN, A.G., akademik, glav. red.[deceased]

[Nikopol' manganese-ore basin] Nikopol'skii margantsevrudnyi bassein. Moskva, Izd-vo "Nedra," 1964. 534 p.

(MIRA 17:6)

1. Institut geologicheskikh nauk AN Ukr.SSR (for Baranova, Molyavko, Romodanova, Usenko).
2. Nauchno-issledovatel'skiy institut geologii Dnepropetrovskogo gosudarstvennogo universiteta (for Gryaznov, Nosovskiy).
3. Trest "Dneprogeologiya" (for Bogdanovich, Kabrizon).
4. Trest "Kiyevgeologiya" (for Bass).
5. Trest "Nikopol'-Marganets" (for Vil'gos, Grazhdantsev, Sosnov).

GUTOROVICH, M.S., inzh.

Determination of the optimum size of repair enterprises. Mekh. i  
elek. sots. sel'khoz. 21 no.4:51-52 '63. (MIRA 16:9)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy  
tekhnologicheskiy institut remonta i ekspluatatsii mashinno-trak-  
tornogo parka.  
(Agricultural machinery--Maintenance and repair)

~~K.~~ Gutowski, K.

✓ Production of chlorophyll [and chlorophyllin] and the industrial applications thereof. Bonifacy Wiglawek and Krzysztof Gutowski (Zaklad Barwnikow Spozywowych GIPRIIS; Warsaw). "Prace Glownego Inst. Przemyslu Rolnego i Spozywczego" 4, No. 3, 32-9(1954).—The best Polish raw material available for the manuf. of chlorophyll (I) and chlorophyllin (II) is lucerne (alfalfa). It is extd. with petr. ether, the obtained ext. is used for the prepn. of carotene and lipides. Then follows an  $\text{Me}_2\text{CO}$  extrn., and extrn. with  $\text{MeOH}$ , from which ext. xanthophyll may be prep'd. Finally follows an adsorption on talcum, from which the I is eluted with  $\text{Et}_2\text{O}$ ; the residual talcum contains the II and some phy-

tol. Both I and II obtained are sufficiently pure for practical use.

Werner Jacobson

POLAND/Chemical Technology. Chemical Products and Their  
Application. Leather. Fur. Gelatine. Tanning  
Materials. Industrial Proteins.

R-35

Abs Jour: Ref Zhur-Khim., No 2, 1959, 6957.

Author : Gutorski, Krzysztof.

Inst :

Title : Application of Melamine and Resorcin Resins to Finishing  
Leather.

Orig Pub: Przegl. skierzany, 1957, 12, No 7, Biul. lab. kalorystycz-  
nego, 1-4.

Abstract: No abstract.

Card : 1/1

GUTORTSOV, V.Ye., (Vinnitsa, ul. Chkalova d.15/2); KUCHERENKO, A.Ye., kand. med. nauk

Methodology of the development of movements in the shoulder joint.  
Ortop., travm. i protez. 26 no.7:71-72 Jl '65. (MIRA 18:7)

1. Iz Vinnitskogo oblastnogo gospitalsya invalidov Otechestvennoy voyny  
(nachal'nik - N.K.Onikiyenko).

GUTOV, N.G.; AKATOV, M.A.

Work experience of the Moscow mechanized factory-laundry no.6.  
Gor.khoz.Mosk.29 no.10:32-36 0 '55. (MIRA 9:2)  
(Moscow--Laundries, Public)

GUTOV, N.G.; SHPARBER, Yu.A.

Using synthetic washing powders in a laundry. Masl. -zhir.prom.23  
no.1:23-24 '57. (MLRA 10:1)

1. Moskovskaya fabrika-prachechnaya no.6.  
(Washing powders)

GUTOV, N.G.; SHPARBER, Yu.A., tekhnolog

New synthetic soapless cleansing agents. Gor.khoz.Mosk. 31 no.5:29  
Mys '57. (MIRA 12:3)

1. Direktor fabriki-pracheshnoy No. 6.  
(Washing powders)

GUTOV, N.G., tekhnolog; SHPARBER, Yu.A.

Mechanized ironing of laundry. Gor. khoz. Mosk. 32 no.2+32-33 F '58.  
(MIRA 11:1)

1. Moskovskaya fabrika-pracheshnaya no.6. 2. Direktor Moskovskoy  
fabriki-pracheshnoy no.6 (for Gutov).  
(Laundry)

GUTOV, N.; PISHCHIK, A.

The laundry is transferred in containers. Zhil.-kom. khoz.  
11 no.12:29 D '61. (MIRA 16:11)

1. Direktor 6-y fabriki-prachechnoy, Moskva.

LYUBARSKII, G.E.; GUTOV, P.P.; BYCHKOV, I.F.

Specification of standards for toothed and worm gears is needed.  
Standartizatsiia 27 no.12:53 D '63. (MIRA 17:4)

GUTOVA, L.N.

Stratigraphy of Jurassic sediments in the Irkutsk Coal Basin.  
Trudy Inst. zem. kory SO AN SSSR no.15892-99 \*63  
(MIRA 1783)

JFMVII, Svetozar

Specialization of production, and labor productivity in the textile industry and especially in the knitwear manufacture.  
Tekstil ind Beograd 12 no.12:687-688 '64.

1. Technical Director, "FTIK" Knitwear Factory, Titograd.

UTEYEV, A.F., polkovnik med.sluzhby; POLTORATSKIY, R.P., podpolkovnik  
med.sluzhby; GUTOVICH, S.P., vrach

Consequences of a closed trauma of the brain; a preliminary  
report. Sbor.nauch.trud.Kiev.okruzh.voen.gosp. no.4:357-360  
'62. (MIRA 16:5)

(BRAIN--WOUNDS AND INJURIES)

GUTOVSKIY, Evgeniy Nikolaevich; KIVIEN'KA, v.d.s., prof., red.;  
TATLICHENKO, G.P., red.

[Comprehensive laboratory manual on the zoology of the  
vertebrates; anatomical part] Bol'shoi praktikum po zo-  
ologii pozvonochnykh; anatomicheeskaja chast'. Moskva,  
Izd-vo Mosk. univ. Pt.2. no.2. 1964. 45 p.  
(MIRA 18:6)

Opposite my left hand, known as the "GUNPOWDER" hand, I have:

the displacement of stops. (fig) My right hand, known as the "SILVER" hand, I have:

(MAB 17:4)

MEREZHINSKIY, M.F.; GUTOVSKAYA, A.V.

Dependence of the carbonic anhydrase activity in vissue on the quality  
of diet. Vop.pit. 16 no.1:65-69 Ja-F '57. (MIRA 10:3)

1. Iz kafedry biokhimii Minskogo meditsinskogo instituta.

(HYDRASMS, metab.

carbonic anhydrase tissular activity, eff. of diet quality  
in guinea pigs & mice (Rus))

(DIETS, exper.

eff. of diet quality on tissular carbonic anhydrase  
activity in guinea pigs & mice (Rus))

GUTOVSKAYA, A.V.

ABRAMOVA, N.M.; ANISIMOVA, V.F.; GUTOVSKAYA, A.V.; KIBUAKOV, A.V.;  
URAZAYEVA, Z.V.

Role of dynamic cardiac nerves in the trophic regulation of the  
myocardium [with summary in English]. Biul.eksp.biol. i med. 44  
no.7:50-54 Jl '57. (MIRA 10:12)

1. Iz kafedry normal'noy fiziologii (zav. - chlen-korrespondent AMN  
SSSR prof. A.V.Kibyakov) Kazanskogo gosudarstvennogomeditsinskogo  
institute. Predstavlena deystvitel'nym chlenom AMN SSSR prof.  
S.Ye.Severinym.

(MYOCARDIUM, metabolism,  
eff. of stimulation of autonomic innervation of  
heart (Rus))

(AUTONOMIC NERVOUS SYSTEM, physiology,  
eff. of stimulation of dynamic nerves of heart on  
myocardial metab. (Rus))

ABRAMOVA, N.M., ANISIMOVA, V.F., GUTOVSKAYA, A.V., KIBYAKOV, A.V., URAZAYEVA, Z.V.

Trophic changes in the myocardium in chronotropic effect. Biul.eksp.  
biol. i med. 45 no.6:22-25 Je '58 (MIRA 11:8)

1. Iz kafedry normal'noy fiziologii (zav. - chlen-korrespondent AMN  
SSSR A.V. Kibyakov) Kazanskogo meditsinskogo instituta. Predstavlena  
deystvitel'nym chelnom AMN SSSR S.Ye. Severinym.  
(HEART, physiology  
eff. of rhythm changes, trophic aspects (Eng))

GUTOVSKAYA, A.V., Cand Biol Sci — (diss) "Relation of the  
activity of carbon anhydrase <sup>to function of</sup> ~~to certain factors of~~ <sup>nutrition</sup> ~~feeding~~  
in the development of biochemical changes due to trauma."

Kazan', 1959, 15 pp (Min of Agr USSR. Kazan' State Vet Inst im  
I.E. Bauman) 150 copies (KL, 28-59, 12A)

GUTOVSKAYA, A. V., MEREZHINSKY, M. F., and ANISIMOVA, V. E.(USSR)

"Biochemical Aspects of Adaptation of the Animal Body."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 Aug 1961

KUDRIASOV, V. A.; VLADISIROV, N.D.; VLADIMIROVA, L.F.; GUTENSKAYA, A.V.

Notes on biochemical studies on the administration of paranitrophenyl ester of dibutylphosphinic acid to experimental animals.  
Nauch. trudy Kaz. gos. med. inst. 14:77-78 '64. (MIRA 18:9)

t. Kafedra biokhimii (zav. - docent L.F.Vladisirova) Kazanskogo meditsinskogo instituta.

GUTOVSKAYA, M.S.

Rationalizers of the "Krasnogvardeets" Plant. Med.prom. no.4:12-13  
0-D '55. (MIRA 9:12)

1. Mediko-instrumental'nyy ordena Lenina zavod "Krasnogvardeyets."  
(DRUG INDUSTRY  
in Russia, contributions to progress)

GUTOVSKAYA, Z.-P.

Rapid Method for the Control of a Solid Case-Hardening Agent. Z. P. Gutovskaya. (Zaved. Zavoda Laboratorija, 1960, 10, (11), 1305-1309). [16, Russian]. A brief account is given of a rapid method for the determination of carbon dioxide and moisture in solid case-hardening agents. --n. w.

GUTOVSKIY, B.P.

Grouping of shops in hardware plants. Prom. stroi. 40 no.7:14-16  
'62. (MIRA 15:7)

1. Giprometiz.  
(Factories—Design and construction) (Hardware)

YUKHNETS, Izraill' Abramovich; GUTOVSKIY, B.I., inst., retired.

[Drawing] Vlozhill'noe proizvodstvo. Moskva, Metalurgija.  
Pt.1. Izd.2., perer. 1965. 374 p. (MIA 18:3)

1. Gosudarstvennyy institut po proektirovaniyu metiznykh  
zavodov (for Gutovskiy).

GORENSHTEYN, B.V., kand.tekhn.nauk; CHINENKOV, Yu.V., kand.tekhn.nauk;  
ABOVSKIY, V.P., inzh.; GUTOVSKIY, E.V., inzh.; NOVIKOV, V.S.,  
inzh.; PESHKIN, I.G., inzh.

Use of long cylindrical precast prestressed concrete shells. Prom.  
stroi. 40 [i.e. 41] no.4:13-17 Ap '63. (MIRA 16:3)  
(Roofs, Shell)

GUTOVSKIY, I. G.  
USSR/Electricity - Conductors

G-4

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12239  
Author : Gutovskiy, I.G., Selisskiy, Ya.P.  
Inst :  
Title : Anomaly of Electric Resistance in the Fe<sub>3</sub>Si Alloy.  
Orig Pub : Fiz. metallov i metallovedeniye, 1956, 2, No 2, 375-376

Abstract : Measurement was made of the electric resistivity (R) of an alloy Fe<sub>3</sub>Si at high temperatures (T) to determine the temperature region of the disordering of this alloy. As the critical temperature of ordering was approached, there should have appeared, in connection with the reduced degree of order, an additional resistance with a break on the R vs. T curve at the critical point. Measurements have shown a strictly linear course of the R vs. T curve up to 600°, where a sharp break in the curve was observed and a subsequent slight reduction in the electric resistivity as the temperature was increased to

Card 1/2

GUTOVSKIY, I. G.

20-2-18/50

AUTHOR: Gutovskiy, I. G.

TITLE: On the Theory of the Photoelectric Fluxmeter (K teorii fotoelektricheskogo flyuksmetra)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 2, pp. 229 - 231 (USSR)

ABSTRACT: On the basis of the methods of the theory of automatic control and by means of operation computation the present paper explains the most important bases of the theory of the fluxmeter and mentions a new method for the estimation of the operating accuracy of devices of the type of photoelectric compensators. The method is used instead of the method of frequency phase characteristics and is much more simple. All photoelectric fluxmeters can be represented by means of a block scheme. In principle, these devices do not differ from operation amplifiers, and apart from differences of constructional shape, they are of exactly the same nature. The fluxmeter is characterized by the following parts : 1.) A reflecting galvanometer, 2.) Photodemount bridge, 3.) Direct current amplifier, 4.) Differentiating part. The transmission function of these elements and the transmission function of the closed system are given. Also for the work function of a perfect integrator an expression is given.

Card 1/2

SOV/115-60-1-22/28

AUTHOR: Gutovskiy, I. G.

TITLE: Photoelectric Fluxmeters

PERIODICAL: Izmeritel'naya tekhnika, 1960, Nr 1, pp 54-59 (USSR)

ABSTRACT: The article contains general design information on different photoelectric fluxmeters recently developed in the USSR and other countries (USA, Britain, France, Japan, Germany). Comparisons are made between different designs. It is stated that a new Soviet-designed fluxmeter is at present under development /Ref. 3, A. N. Kasperovich and Ref. 19, S. G. Rabino-vich and A. N. Tkachenko/. Soviet designs of Ye. I. Surikova, S. P. Kapitsa and R. R. Kharchenko are discussed. There are 4 diagrams, 1 set of graphs and 19 references, of which 9 are Soviet, 8 English, 1 Japanese and 1 German.

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84474

S/103/60/021/010/007/010  
B012/B063

9,6000 (1012, 1024, 1099)

AUTHOR:

Gutovskiy, I. G. (Moscow)

TITLE:

The Problem of the Most Rational Selection of the Circuit  
of a Photoelectric Fluxmeter ✓

PERIODICAL:

Avtomatika i telemekhanika, 1960, Vol. 21, No. 10,  
pp. 1401-1409

TEXT: The present paper deals with the theory of photoelectric fluxmeters which are integrating amplifiers with photoelectro-optic amplification. The author further develops the method described by him in Ref. 4, which is based on operational calculus (Ref. 5). The block diagram of the photoelectric fluxmeter agrees with the previously developed basic circuit diagram of integrating amplifiers (Ref. 6). The circuit diagram of an integrator with a derivative negative feedback connected in series is shown in Fig. 1. Most of the published circuit diagrams of photoelectric fluxmeters correspond to this integrator. The basic circuit diagram of such photoelectric fluxmeters is shown in Fig. 2. It is described in Refs. 3 and 7. Fig. 3 shows an integrating amplifier which

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The Problem of the Most Rational Selection of  
the Circuit of a Photoelectric Fluxmeter

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B012/B063

is the prototype of the photoelectric fluxmeter without feedback, suggested by S. P. Kapitsa (Ref. 10). The circuit diagram shown in Fig. 2, which is usually supplemented by a positive feedback (Fig. 4), forms the basis of the present work. For the theory explained here the author assumes that all elements act directionally, and that there are no amplitude distortions and loads. He studies photoelectric fluxmeters without feedback, with a feedback connected in series, and the effect of disturbances and distortions. The conditions for stability in the most general case of a circuit with combined feedback were established according to Mikhaylov (Ref. 13). On the basis of the above-described theory the author draws the following conclusions. 1) A photoelectric fluxmeter with a derivative negative feedback connected in series is the simplest type, which is also sufficiently accurate and has the shortest response time. 2) The type with combined feedback, including a strong positive feedback, guarantees a considerable reduction of creep, but can be used only if the non-linear distortions in the amplifier circuit are sufficiently small. 3) In the theory of photoelectric fluxmeters it is advisable to employ besides frequency methods also the method in which the principal errors are expressed by integrals and derivatives of the initial quantity. This method

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the Circuit of a Photoelectric Fluxmeter

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can be used to analyze the operation of the instrument, to calculate it,  
and to take into account the errors involved. It may be also used for  
analyzing the operation of other integrators. S. P. Kapitsa, R. R.  
Kharchenko, S. G. Rabinovich, and M. I. Levin are thanked for their  
assistance in the present work. There are 5 figures, 1 table, and  
13 references: 11 Soviet, 1 US, and 1 Dutch. ✓

SUBMITTED: March 10, 1960

Card 3/3

GUTOVSKIY, I.G.

Phototube bridge. Izm.tekh. no.4:30-34 '61.  
(Bridge circuits)

(MIRA 14:3)

GUTOVSKIY, M.V.; DEKATOV, V.N.

Designing the main electric networks for modern multimotor  
airplanes. Nauch. dokl. vys. shkoly; energ. no.2:39-44 '58.  
(Electricity in aeronautics) (MIRA 11:11)

8(3)

SOV/119-59-4-10/18

AUTHORS: Gutovskiy, M. V., Engineer, Kamenskiy, A. V., Engineer

TITLE: Determination of the Characteristic Constants of  
Airplane Wiring for Alternating Current (Opredeleniye  
elektricheskikh parametrov samoletnykh provodov  
peremennogo toka)

PERIODICAL: Priborostroyeniye, 1959, Nr 4, pp 20-21 (USSR)

ABSTRACT: An analytical determination of the characteristic constants of a.c. wiring is rendered difficult by the influence of the airplane fuselage upon the active and the reactive resistance of the a.c. wiring. It is most expedient to add corrections to the values of the active and reactive resistances, which were derived under the assumption of an ideally conducting fuselage. These corrections should be determined by experiments with model airplanes. Such measurements can be carried out according to a bridge method, or even more accurately, by a compensation method. This article treats of compensation measurements which are a means of determining accurately the characteristic constants of a.c. mains and tap lines in an airplane. The measuring instrument was fed from an airplane generator

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Determination of the Characteristic Constants of Airplane Wiring for  
Alternating Current SOV/119-59-4-10/18

SGS-7,5 ( voltage 120, frequency 400 cy ) driven by an asynchronous motor. Ailerons with trims were taken as the structural element of the airplane. The wire under investigation had a length of 1 - 2 m, and its position with respect to the fuselage could be changed. The active and the reactive resistances of the wire were measured by comparing the voltage drop in the wire and in the metal fuselage of the airplane with the voltage drop at the control resistances. The authors carried out numerous measurements of the active and the reactive resistance of the airplane wires BPVL, both of single wires and of several (2 - 5) which were either connected in series or parallel. During these measurements the fuselage conducted a current or the neutral conductor was insulated. From the information gained by these experiments it can be readily seen that:  
1) the active resistance  $r$  and the inductive resistance  $x$  of airplane wires is influenced by the type of fuselage, by the clearance between the wire and the fuselage and by the method of installation, either single, branched or

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Determination of the Characteristic Constants of  
Airplane Wiring for Alternating Current

SOV/119-59-4-10/18

stranded. In the practical design of a.c. wiring in airplanes  $r$  and  $x$  must be computed according to the following formulas:  $r = r_p + \Delta r$ ;  $x = x_p + \Delta x$ , where  $r_p$  and  $x_p$  denote the values of the active and the reactive resistances, respectively, of the wire computed under the assumption of an ideally conducting fuselage, and  $\Delta r$  and  $\Delta x$  the corrections to the active and reactive resistance, respectively, which are to be determined for each type of airplane according to the method discussed in this paper. There is 1 figure.

Card 3/3

Gutovskiy, Mikhail Vasil'yevich

PHASE I BOOK EXPLOITATION

SOV/5887

Posobiye po proyektirovaniyu i raschetu elementov i sistem aviationskogo elektronoborudovaniya. vyp. 1: Samoletnyye elektroseti (Manual on the Designing and Calculation of Aircraft Electrical-Equipment Elements and Systems. no. 1: Aircraft Power-Supply Networks) Moscow, Oborongiz, 1961. 136 p. 6000 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR. Moskovskiy ordena Lenina aviatsionnyy institut imeni Sergo Ordzhonikidze.

Ed. (Title page): Yu. A. Popov, Professor; Ed. of Publishing House: K. I. Grigorash; Tech. Ed.: A. Ya. Novik; Managing Ed.: A. S. Zaymovskaya, Engineer.

PURPOSE: This book is intended for students at aeronautical institutes and for engineers engaged in the field of aircraft electrical equipment and automatic devices.

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SOV/5887

## Manual on the Designing (Cont.)

COVERAGE: The following problems connected with the designing of electrical equipment for airplanes are discussed: basic principles in the selection of the type of current and voltage; the method of transmission and distribution of electric power; and methods of calculating the heat generation and voltage loss in a-c and d-c electrical networks. The author thanks V. V. Andreyev and V. N. Svetakov, Candidates of Technical Sciences. There are 6 references, all Soviet.

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30874  
S/143/61/000/004/001/005  
D223/D301

26.2190

AUTHORS: Gutovskiy, M.V., Engineer, and Kamenskiy, A.V.,  
Candidate of Technical Sciences, Docent

TITLE: On calculating short-circuit currents of 3-phase  
electrical systems in aircraft

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Energetika,  
no. 4, 1961, 12 - 17

TEXT: For the design of an installation of 400 Kc/s the a.c. net-work analyzer must be used. Preliminary graphical and analytical work is given. The system has a neutral isolator. The short circuit may affect 2 or 3 phases with equal likelihood. As line impedance is negligible, all generators may be replaced by one. Suggestions are given for the evaluating, by a simplified method, the main parameters: Generator voltage, wire resistance, skin effect and inductance. The s.c. currents are calculated by the method of symmetrical components for all possible cases: ABC 3 phases s.c., AB, BC, CA, 2 phases s.c. AO, BO, CO 1 phase s.c. The influence

Card 1/2

26.11.2  
AUTHOR:  
TITLE:

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-

Gutovskiy, M.V., Engineer  
Temperature field of discharge of electric ignition  
systems  
PERIODICAL: Izvestiya vyashikh uchebnykh zavedeniy. Energetika,  
no. 8, 1961, 37-46  
TEXT: The author mentions a mathematical analysis by Ya. V. Zel'dovich, who attempted to derive the dependence of the velocity of an ignited mixture on temperature. The problem is limited to determining a link between the quantity of heat  $Q_{min}$ , and the width of the flame in the form  
$$d_{min} = const \cdot c(t_f - t_0) \delta^3$$

S/143/28571  
D203/D305/61/000/008/001/005

(1)

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S/143/20571  
D203/D305/000/008/001/005

Temperature field of ...  
where

$$\delta = \frac{\lambda}{\rho c} \omega$$

**APPROVED FOR RELEASE: 09/17/2001** CIA-RDP86-00513R000617710010-8

$\omega$  being the velocity of the front of the flame. The author concludes from new investigations first that the flame is capable of spreading the energy of the heat, i.e. the energy of electrical discharge and the chemical energy of fuel are such that there is the required distribution of temperature in the spherical heat wave. and second, that there is available a minimum time of existence of the initial ignition source. The requirements are: 1) the generated amount of heat of electrical discharge (the ratio between mixture. 2) That it is sufficient heat) must effectively ignite the ignition of the fuel to raise the temperature  $T^*$  of the electrical  $v^*$  and to maintain this temperature during the time  $t^*$ , not less

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Temperature field of ...

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than the time of induction /<sup>-</sup>Abstractor's note: Time determined by time constant of circuit 7. 3) That the igniting efficiency of the electrical discharge is finally determined by the characteristics of the temperature field  $\tilde{\tau}(x,y,z,t)$ . The form and size  $\Phi$ , the energy  $Q$ , the frequency  $F$  of the temperature field are analyzed by the author and a general differential equation is derived by him based on Fourier's theory:

$$\gamma c \frac{d}{dt} \tilde{\tau}(x,y,z,t) = \operatorname{div} \left\{ \lambda [\operatorname{grad} \tilde{\tau}(x,y,z,t)] \right\} + \psi(x,y,z,t) \quad (2)$$

The author states that this equation can only be solved for particular cases. A series of simplifications are assumed: 1) The parameters of the burning space do not depend on the coordinates, and are referred to a constant temperature  $\tilde{\tau}_B^*$  equalizing the temperature in the process of heating. 2) The initial ignition is effected by the energy of electrical discharge; the distributed chemical energy of the initial source of inflammation is neglected.

X

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Temperature field of ...

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3) That the electrical ignition of the static combustible space, embraces the fluid fuels. In this case Eq. (2) is written as

$$\frac{\partial}{\partial t} \tau(x, y, z, t) = a \left[ \frac{\partial^2}{\partial x^2} \tau(x, y, z, t) + \frac{\partial^2}{\partial y^2} \tau(x, y, z, t) + \frac{\partial^2}{\partial z^2} \tau(x, y, z, t) \right] \quad (3)$$

where  $a = \frac{\lambda}{\rho c}$  - the coefficient of the heat transfer. The temperature field  $\tau(x, y, z, t)$  of the single electrical discharge is first examined, and then the temperature field  $\tau(x, y, z, t)$  for a series of electrical discharge. The author states that this problem cannot be solved analytically, and gives a graphical, analytical solution. The temperature field of the single discharge is found analytically and the field  $\tau(x, y, z, t)$  of a series is found as a sum of the single discharges, located in the same space, but shifted in time on the value of the slit. In order to establish the temperature field of a given single electric discharge, the knowledge of the

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D203/D305

parameters  $Q, \gamma, c, \lambda$ , a is required. The values of the fuel space parameters  $\gamma, c, \lambda$ , a are taken as constant and are referred to the mean temperature  $\bar{\tau}_b^*$  of the equalizing of warming. The latter values differ with the energy and should be taken separately. The author suggests the following method of consecutive approximations: 1) The partial equalizing temperature  $\tau_B(k)$  is found for an isothermic surface of the k-th order ( $S_k = \text{constant}$ ). The values of  $\tau_B(k)$  are selected arbitrarily, and  $\gamma'_k, c'_k, \lambda'_k$  are calculated, and the function  $\tau(t)$  is established as in Fig. 2. The surface  $S_k$  is limited by the curve  $\tau(t)$  for  $\rho = \rho_k$  and the time interval  $\Delta t_k$  is then determined. The calculated equalizing temperature is found from

$$\tau_{B(k)} = \frac{S_k}{\Delta t_k} \quad (28)$$

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Should the calculated  $\tau_B(k)$  not coincide with  $\tau_B^*(k)$  the whole calculation is repeated; 2) The equalizing temperature of the process  $\tau_B^*$  is determined as a mean value from

$$\tau_B^* = \frac{1}{n} \sum_{k=1}^n \tau_B(k) \quad (29)$$

A method of establishing the temperature field of discharge of electrical ignition systems is then examined. The analytical meaning of  $\tau(x,y,z,t)$  of the single electric discharge is found; the final values of  $\tau(x,y,z,t)$  for the single discharges can be taken from the author's paper (Ref. 4: O. temperaturnom pole elektricheskogo razryada prednaznachennogo dlya vosplameneniya khimicheskikh topliv Tr. VVIA, 1959). 2) A nomogram of the temperature field of electric discharge is established for a given form and method of heat generation (Fig. 6). 3) The value of Q of the effective thermal energy

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S/143/61/000/008/001/005  
D203/D305

Temperature field of ...

is found for a single electric discharge, as by the author previously with V.I. Ivanov (Ref. 5: Kalorimetrvaniye energii elektricheskogo razryada kak istochnika vosplameneniya maloinertsionnym preobrazovatelyem. Izv. vuzov. SSR, Elektromekhanika, no. 3, 1959). 4) The equalizing temperature is found and reference is made to the thermo-physical parameters  $\gamma'$ ,  $c$ ,  $\lambda$ ,  $a$  of the fuel. 5) A family of curves  $T(t)$  is established for  $Q=1$  for some selected isothermal surfaces. 6) The temperature field of an electric system is found graphically by superposing values of  $T(x, y, z, t)$  of single discharges, referred to the common space but shifted in time on the value of the slit. There are 6 figures and 7 references: 6 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: Morgan John David, Principles of ignition, London, 1944.

ASSOCIATION: Moskovskiy aviatsionny institut imeni S. Ordzhonikidze (Moscow Aviation Institute imeni S. Ordzhonikidze)

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Temperature field of ...

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S/143/61/000/008/001/005  
D203/D305

PRESENTED: by the Kafedra aviatsionnogo elekrooborudovaniya  
(Department of Aircraft Electrical Equipment)

SUBMITTED: September 16, 1960

Card 8/10

PHASE I BOOK EXPLOITATION SOV/6015

BR

Gutovskiy, Mikhail Vasil'yevich, and Vladislav Fedorovich Korshunov

Posobiye po proyektirovaniyu i raschetu elementov i sistem aviationskogo elektrooborudovaniya. vyp. 2: Silovyye elektromagnity i kontaktory (Manual for the Calculation and Design of Components and Systems of Aircraft Electric Equipment. v. 2: Power Electromagnets and Contactors) Moscow, Oborongiz, 1962. 164 p. Errata slip inserted. 3400 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR. Moskovskiy ordena Lenina aviatsionnyy institut im. Sergo Ordzhonikidze.

Ed. (Title page): Yu. A. Popov, Professor; Reviewers: V. V. Andreyev, Candidate of Technical Sciences, and A. V. Kamenskiy, Candidate of Technical Sciences; Ed. of Publishing House: K. I. Grigorash; Tech. Ed.: V. I. Oreshkina; Managing Ed.: A. S. Zaymovskaya, Engineer.

Card 1/4

Manual for the Calculation (Cont.)

SOV/6015

PURPOSE: This book is intended as a textbook for students at schools of higher technical education who are taking course and graduate project work, and may also be useful to engineers and technicians working in electroautomation and in the electromechanical field.

COVERAGE: Fundamentals are given for the calculation of magnetic systems, time parameters of electromagnets, magnetic-force systems of contactors, and thermal capacities of coils. Also included are recommendations for the optimum design of power electromagnets, descriptions of typical constructions of electromagnetic mechanisms, reference material on calculation and design, and some design examples. Attention is given to the outstanding features of electromagnetic devices, which play an important part in the process of automation of electric aircraft equipment. No personalities are mentioned. There are 13 references, all Soviet (including 1 translation from English).

TABLE OF CONTENTS [Abridged]:

Introduction  
Card 2/\*

3

GUTOVSKIY, Mikhail Vasil'yevich; KORSHUNOV, Vladislav Fedorovich;  
ANDREYEV, V.V., kand. tekhn. nauk, retsenzent; KAMENSKIY,  
A.V., retsenzent; GRIGORASH, K.I., red.izd-va; ORESHKINA, V.I.,  
tekhn. red.

[Manual on the calculation and design of aeronaticla electrical  
equipment components and systems] Posobie po proektirovaniyu i  
raschetu elementov i sistem aviationsnogo elektroborudovaniya.  
Pod red. I.U.A.Popova. Moskva, Oborongiz. No.2. [Power electro-  
magnets and contactors] Silovye elektromagnity i kontaktory.  
1962. 164 p. (MIRA 15:7)

(Airplanes--Electric equipment)

GUTOVSKIY, M.V., kand.tekhn.nauk

Designing main electric circuits of an airplane considering  
parallel performance of generators. Trudy MAI no.145:19-40  
'62. (MIRA 15:9)

(Airplanes--Electric equipment)

40592

S/535/62/000/145/001/002  
IG11/I211

26.2.152

AUTHORS: Gutovskiy, M. V., Candidate of Technical Sciences, and Popov, Yu. A., Professor

TITLE: Frequency discharge repetition in electric ignition systems

SOURCE: Moscow. Aviationsionnyy institut. Trudy, no. 145, 1962. Voprosy elektroavtomatiki i  
elektrooborudovaniya samoleta, 60-77

TEXT: The duration of the discharge is neglected and thus the charging time alone must be calculated to find the discharge repetition rate. Two types of charging circuits are analyzed. In both of them the discharge gap is connected across the operating capacitor which is charged by the secondary of a transformer through a half-cycle rectifier. The primary of the transformer is fed by a chopped d.c. voltage in the first type and by an a. c. voltage in the second. The circuit of the first type is analyzed by a linear differential equation, and it is shown that the charging time is contained implicitly in the equation derived. For practical purposes a calculation based on energy relations is suggested. An equation for the charging time is derived, assuming equal capacitor energy increments in each charging pulse. This equation is used in a numerical example. The charging time in the circuit of the second type is calculated by the method of S.S. Khukhrikov [Priblizhennyi chislennyi metod rascheta perekhodnykh protsessov v lineynykh i neulineynykh sistemakh (an approximate

Card 1/2

Frequency discharge repetition...

S/535/62/000/145/001/002  
1011/1211

numerical method for the calculation of transients in linear and nonlinear systems), Trudy MAI, number 66, 1956]. This is based on the equation

$$x[(m+1)\tau] = (-1)^m \frac{1}{m! \tau^m + 1} \left[ \frac{d^m X(p)}{d p^m} \right]_{p=1/\tau}, \quad (31)$$

where  $X(p)$  is the transform of  $x(t)$  and  $p$  is the transform operator. Thus the nonlinearities of the transformer iron core and rectifier can be accounted for when using the recurrent formulas that are derived. A numerical example where the nonlinear characteristics are given graphically is solved. The possibility of a graphical solution is shown. Results after 45 applications of the recurrent formulas are plotted. The case of a full cycle bridge rectifier is dealt with. The methods discussed enable one to find more accurately the discharge repetition rate in the two circuits. There are 7 figures.

Card 2/2

IVANOV, V.I., kand. tekhn. nauk; GUTOVSKIY, M.V., kand. tekhn. nauk

Integrating differential capacitive transducer. Izv. vys.  
ucheb. zav.; energ. 7 no.2:30-36 F '64. (MIRA 17:3)

1. Moskovskiy ordena Lenina aviatsionnyy institut.

USSR/Zooparasitology .. Parasitic Worms.

G

Abs Jour : Ref Zhur Biol., No 1, 1959, 1013

Author : Gutovskiy, V.I.

Inst : Kazakh Scientific Research Veterinary Institute

Title : Dynamics of Infection of Sheep with Helminthiasis in  
Northern Kazakhstan Region

Orig Pub : Tr. Kazakhsk., n.-i. vet. in-ta, 1957, 9, 502-509

Abstract : No abstract.

Card 1/1

- 28 -

GUTOVSKIY, V.I.

Effectiveness of the vermifuge treatment of dogs. Veterinariia  
42 no.9:44-45 S '65. (MIRA 18:11)

1. Glavnnyy veterinarnyy vrach TSelinnogo krayevogo upravleniya  
sel'skogo khozyaystva.

GUTOVSKIY, V.N., inzhener.

Modernizing the 100-35 dredging pump. Mekh.stroi. 14 no.3:26-27  
Mr '57. (MIRA 10:4)  
(Dredging machinery)

30(1)

AUTHOR: Gutovskiy, V.N., Engineer

SOV/98-59-9-5/29

TITLE: New Equipment for Clearing Forests in Large Reservoir  
Inundation Areas

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 9, pp 12-  
17 (USSR)

ABSTRACT: To solve the problem of cutting and removal of trees  
in the future Nizhneobskaya (Lower Ob') GES reservoir  
which will comprise a total of 8,741,000 hectares, including  
3,344,000 hectares of forests (Tab 1), the "Gidro-  
projekt" Institute which is preparing the project for  
this power plant, in cooperation with the "Giproles-  
prom" Institute has designed a machine for cutting  
trees (Fig 1 and 2) named the "PLK-2" floating log-  
ging combine. The designed combine consists of a pon-  
toon with a movable head part for cutting trees under  
water surface at a depth up to 8 m under the pontoon  
bottom. To ensure the cutting as low as possible, po-  
sition of the head part is controlled by the

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SOV/98-59-9-5/29

New Equipment for Clearing Forests in Large Reservoir Innundation Areas

"Ekholograf" (a sounding device). The combine has a capacity of 170 cu m/8 hr, a total length of 80 m, it is 7 m high (from the bottom of the pontoon to the deck) including 1 m draught and has a width of 20 m which is at the same time, the width of the head part and forest clearing track, respectively. The combine has 8 parallel processing sets which start at the head part by 8 chain saws, each installed between a pair of wedge-shaped tools (which controls approach of trees to the saws). After cutting, a tree is further transported by a system of screw- and rolling conveyors to the deck to be further disintegrated: lumbers are sorted and bunched by a "TsNIIlesosplav" mechanism to be used in the cellulose industry and branches and tops are used as fuel in a 3,000-kw thermal power plant type "DKVr-10-39-440" which supplies power to the combine. The combine is designed to be limitedly self-propelled (during the operation process) but

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SOV/98-59-9-5/29

New Equipment for Clearing Forests in Large Reservoir Innundation Areas

has to be towed when it changes place of operation. In the "Gidroproyekt" a model processing set was made, equipped with a TsNIIIME K-5 electric chain saw, and coordination of operation was checked. There are 2 tables and 2 diagrams.

Card 3/3

SHKUNDIN, Boris Markovich; GUTOVSKIY, V.N., red.; BORUNOV, N.I.,  
tekhn.red.

[Suction dredges] Zemlesosy i zemlesosnye snariady. Moskva,  
Gos.energ.izd-vo, 1961. 335 p. (MIRA 14:6)  
(Dredging machinery)

GUTOVSKIY, Vladimir Nikolayevich; DANOVSKIY, N.P., nauchnyy red.;  
IVANOV, S.M., red.; SAVCHENKO, Ye.V., tekhn.red.

[Improving technological production processes] Sovershenstvo-  
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SOV/124-58-8-9028

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AUTHOR: Gutovskiy, Ye.V.

TITLE: A Particular Case of Using Electrical Methods to Measure the Static Pressure in a Stationary Liquid Flow (Chastnyy sluchay izmereniya elektricheskimi metodami staticheskogo davleniya v statsionarnom potoke zhidkosti)

PERIODICAL: Tr. Leningr. politekhn. in-ta, 1956, Nr 187, pp 36-43

ABSTRACT: The author describes briefly the design of a sensor element intended for measuring electrically the static pressures in a flow of water, and he gives a short account of experimental investigations that have been made of the working of this element. A small-size induction-type pressure transducer is installed either in a chamber built especially for it or directly in the inlet section of the sensor element, the latter being constructed in the form of a lens-shaped capsule. The sensor element is able to travel rapidly within the flow along a path that will keep the principal plane of its capsule approximately parallel to the direction of the flow velocity at any point on the path. The sensor element with the pressure transducer carried

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A Particular Case of Using Electrical Methods (cont.)

directly in its capsule is free of inertia, but inasmuch as it has in its measuring bridge only one magnetic system it is not able to compensate for changes in temperature. The presence in the sensor's intake portion of a column of water extending up to the pressure-transducer membrane introduces an element of inertia, and thereby increases the error in measurements made at elevated flow velocities. The author states that at the Hydraulic-machinery Laboratory of the Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute) a sensor element equipped with an induction-type pressure transducer has been used to measure the static-pressure field in a stationary flow.

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