

VERSHKOV, V.A., inzh.; BOEROVSKIY, V.M., inzh.; GLEBOV, E.S., inzh.

Concerning safety measures in working on the towers of 400 kv.
and 500 kv. operating power transmission lines. Elek. sta.
34 no.3:60-64 Mr '63. (MIRA 16:3)
(Electric lines--Safety measures)
(Electric power distribution)

VERESHKOV, V.A., inzh.; GLEBOV, E.S., inzh.; MALYSHEV, R.A., inzh.

Lashing of wires on 400 to 500 kv. overhead power transmission
lines. Elek. sta. 34 no.16/74-76 0 '63. (MIRA 16:12)

GLEBOV, F.

Decreasing the amount of metal in making bedsteads. Prom.keop.no.2:
11-12 F '56. (Beds and bedsteads) (MIRA 9:7)

GLEBOV, F., inzhener.

Precision welding of nickel-plated parts. Prom. koop. no.12:

23 D '56.

(MLRA 10:2)

(Welding)

GLEBOV, F., Geroy Sotsialisticheskogo Truda

Machines as well as horses. Nauka ipered. op. v sel'khoz. 9 no.4:47
Ap '59. (MIRA 12:6)

1. Predsedatel' kolkhozu imeni Kirova, Kstovskogo rayona,
Gor'kovskoy oblasti.

(Agricultural machinery)
(Draft horses)

GLEBOV, F.

There will be millions like these. MTC 2 no.7:6 J1 '60.
(MIRA 13:7)

1. Predsedatel' Minskogo oblastnogo soveta profsoyuzov.
(Minsk Province--Efficiency, Industrial)

GLEBOV, Fedor Matveyevich [Hliebov, F.M.]; SHCHERBAKOV, Ivan Andreyevich
[deceased]; RASEGINA, Prankov'ya Vladimirovna [Rast'ohina, P.V.];
PETHUN'KIN, V.Yu., red.; GITSHTEYN, A.D., tekhnred.

[Manual of qualitative chemical semimicroanalysis] Posibnyk
z iakisnoho khimichnoho napivmikroanalizu. Kyiv, Derzh.medychne
vyd-vo URSR, 1959. 203 p. (MIRA 14:2)
(Chemistry, Analytical--Qualitative)

GLEBOV, Fedor Vasil'yevich; SMILOVITSKIY, L., red.; NOVIKOVA, V.,
tekhn. red.

[Headquarters of workers' initiative; from the work practice of regular production conferences] Shtab rabochei initsiativy; iz opyta raboty postoianno deistvuiushch ikh proizvodstvennykh soveshchani. Minsk, Gos.izd-vo BSSR Ned. massovo-polit. lit-ry, 1961. 28 p. (MIRA 15:1)

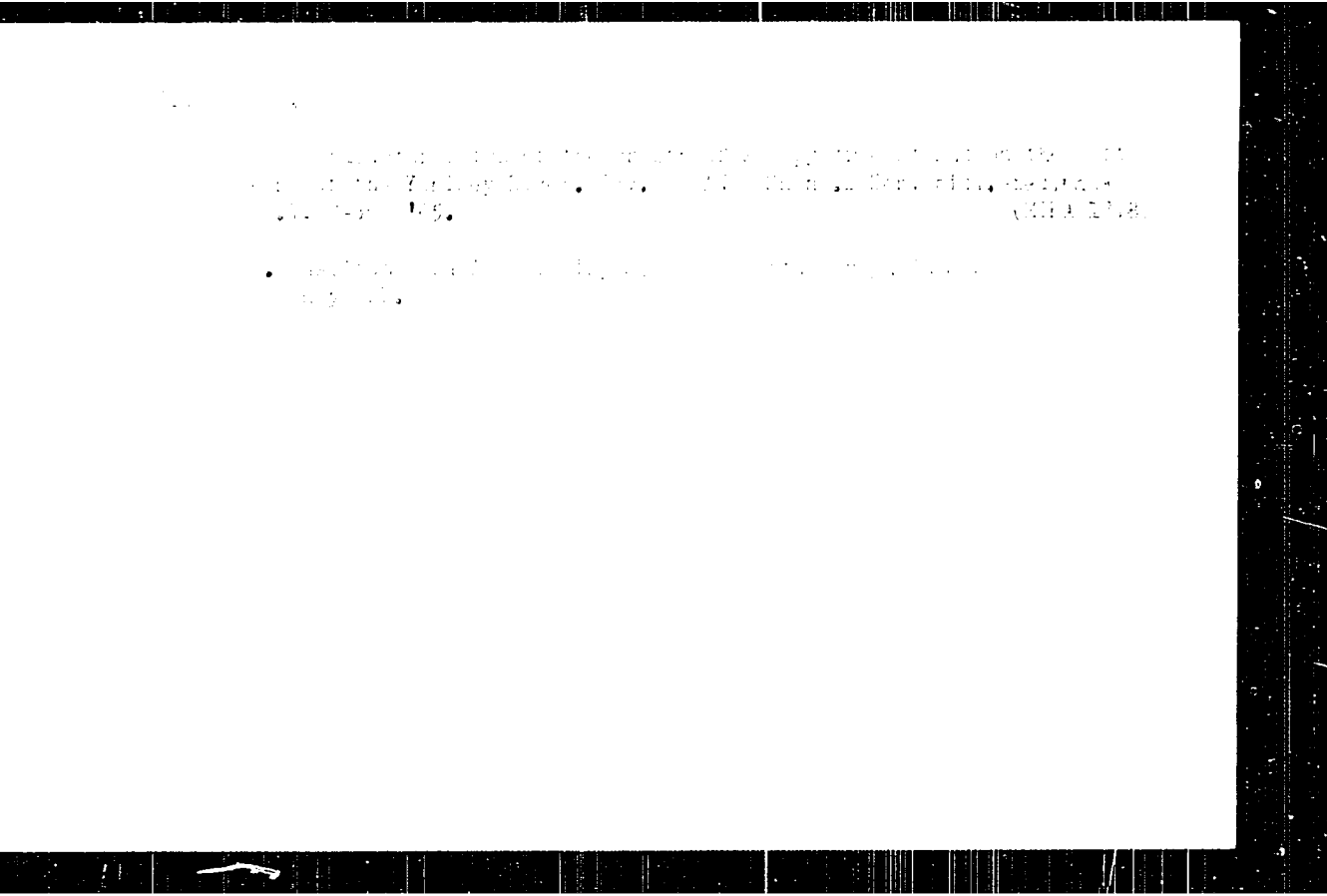
1. Predsedatel' Minskogo oblastnogo Soveta profsoyuzov (for Glebov).

(Minsk Province--Works councils)

GLEBOV, Fedor Vasil'yevich; MYACKOV, M.M., red.; KOLGOBOVA, N.D.,
tskhn. red.

[Educational work of the trade-union committee with a
group of activists] Rabota profsoiuznogo komiteta s ak-
tivom. Moskva, Profizdat, 1963. 100 p. (MIRA 17:3)

1. Predsedatel' Minskogo promyshlennogo oblastnogo soveta
profsoyuzov (for Glebov).



GLEBOV, G.A.

Pneumatic tapered displacement of the tailstock spindle of a lathe.
Stan.i instr. 33 no.1:38 Ja '62. (MIRA 15:2)
(Lathes)

GLEBOV, Georgiy Andreyevich; VERZHBINSKAYA, I.I., inzh., red.; GVIRTS,
V.L., tekhn.red.

[Liquid abrasive cleaning of tools after heat treatment; based on materials from the seminar "Tool manufacture"] Gidroabrazivnaia oshistka instrumenta posle termicheskoi obrabotki; po materialam seminar "Instrumental'noe proizvodstvo". Leningrad, Leningr.dom nauchno-tekhn.propagandy, 1958. 13 p. (Informatsionno-tekhnicheskii listok, no.34. Mekhanicheskai obrabotka metallov) (MIRA 12:4)
(Abrasives) (Machine tools)

GLEBOV, Georgiy Andreyevich; POSTERNYAK, Ye.F., inzh., red.;
FREGER, D.P., red.izd-va; GVIRTS, V.L., tekhn.red.

[Modernization of lathes] Modernizatsia tokarnykh stankov;
opyt Sestroretskogo instrumental'nogo zavoda im. Voskova.
Leningrad, 1961. 19 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Otmen peredovym opytom. Seria: Mekhanicheskaiia obrabotka metallov, no.24)

(MIRA 15:4)

(Lathes--Technological innovations)

GLEBOV, G. D.

GLEBOV, G. D.: "Investigation of the kinetics of absorption of hydrogen by barium and other metals as applied to the production of electro-vacuum instruments." Min Radio Engineering Industry USSR. State Union Sci Res Inst. Moscow, 1955. (Dissertation for the Degree of Candidate in Technical Science.)

So: Knizhnaya letopis', No. 37, 1956. Moscow.

G-LEBCV (G-1)

109-9-15/15

AUTHOR: Stolyarov, L.G.

TITLE: A Science Conference dedicated to the "Radio Day" (Nauchnaya Sessiya, posvyashchennaya "Dnyu Radio")

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol. II, Nr 9, pp. 1221-1224
(USSR)

ABSTRACT: An All-Union Scientific Conference took place in Moscow during 20-25 May, 1957. The Conference was organized by the Scientific-Technical Society for Radio Engineering and Electrical Communications imeni A.S. Popov, All-Union Scientific Council for Radio Physics and Radio Engineering of the Soviet Academy of Sciences and the Ministries of Communications, Radio Equipment Industries, and Culture. The Conference was attended by scientific and engineering personnel from Moscow, Leningrad, Gor'kiy, Kiyev and other principal towns of the country and by representatives of various foreign countries; Bulgaria, Hungary, E. Germany, China, N. Korea, Poland, Czechoslovakia and members of the American Institute of Radio Engineers. The Conference was opened by V.I. Siforov, President of the Society and Corresponding Member of the AcSc USSR. The Plenary Session heard the following reports: A.D. Fortushenko, Member of the Ministry of Communications' Board, on "Ways of Technical Development of Electric Communication in the USSR"; Ye. A. Gaylish, Chief Engineer of the

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A Science Conference dedicated to the "Radio Day"

NII of the Ministry of the Radio Equipment Industry, on "Small Size Parts for General Application"; G.D. Glebov, Chief Engineer of the NII of the Ministry of the Radio Equipment Industry, on "Semiconductor Devices Produced by the Radio Equipment Industry, Prospects of Their Improvement and Expansion of Nomenclature"; Professor S.I. Kitayev on "Electric Telescopy"; Dotsent V.K. Tkach on "Application of Radio Methods for Study of Pathological Phenomena in an Organism." Some results of putting into operation the radio and electron part of a 10,000,000,000 ev synchrophasotron were submitted by A.L. Mints, Corresponding Member of the AcSc USSR. The Conference was divided into the following 12 sections: information theory, antenna systems, semiconductor devices, receiving and transmitting installations, wire communications, television, electronics, radio measurements, radio broadcasting, electro-acoustics and sound recording, general radio engineering and radio wave propagation, and technology of radio equipment production. Altogether over 200 reports were delivered. The Information Theory Section heard about 20 reports among which were the following: L.M. Fink on "Multiposition Systems of Frequency Radiotelegraphy"; N.L. Teplov on "Basic Correlations in Signal

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Integration and Fluctuating Interference in the Radio Receiver Channel"; K.A. Meshkovskiy on "Problems of Noiseproofing of Communication Systems which Receive a Whole Signal"; R.R. Varshamov on "Structure and Evaluation of the Quantity of Coded Signals with Correction of Errors"; V.M. Shteyn on "Quantum Noise of Group Signal in Frequency Separation of Signals"; L.A. Khalfin on "Information Theory of Geophysical Methods of Investigation"; L.A. Khalfin on "Signal Theory"; B.A. Varshaver on "Theory of Carrying Capacity in Binary Transmission"; N.A. Zheleznov on "Principle of Discretization in Theory of Signals Based on New Stochastic Model". The Semiconductor Section heard the following reports: E.I. Adirovich and A.M. Gordonov on "Theory and Experimental Investigation of Coefficients of Emitter-Collector Transmission in Junction Transistors"; Yu. K. Barsukov on "Transitional Blocking Process in Junction-type Germanium Diodes DGTs"; A.I. Borisov on "Nonlinear Amplifier Distortions in Transistors"; A.A. Rizkin on "Regeneration and Neutralization of Stages in Transistors"; V.N. Kononov on "Application of Nonlinear Feedback to Eliminate Saturation of Junction Transistors in Pulse Circuits"; Ya. A. Fedotov on "Frequency Properties of Drift Triodes". The Radio Engineering Section heard 19 reports among which were the following: Ya. S. Itskhoki on "Minimum Volume of a Pulse Transformer"; O.N. Litvinenko on the use of heterogenous lines with continuously alternating parameters for pulse shaping; Yu. B. Sindler and A. S. Nemirovskiy on "Calculation of the Influence of Fading in Designing Radio Relay

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Communication Lines"; V.S. Troitskiy on "Theory of the Molecular Generator and Fluctuation of Its Oscillation"; N.N. Lunasharskiy on "Effect of EMF with Alternating Parameters on a Self-Oscillating System"; I.L. Bershteyn on "Phase Stabilization of the Frequency of Microwave Generators"; Yu. Ya. Yurov on "A New Microwave Band Balance Mixer". The Antenna Systems Section heard more than 15 reports. Among them were the following: V.I. Zimina on "Theory of Propagation of Electromagnetic Waves Along Tubes filled with Ionized Gas"; A.A. Pirogov on "Ballistic Antennas"; V.I. Talanov on "A Method Solving the Problem of Excitation of Surface Waves over an Impedance Surface"; P.R. Cherep on "Wave Guide Bend with Surface Wave"; N.P. Kerzhentseva on "Propagation of Electromagnetic Waves in Beat Wave Guides of Circular Cross Section"; A.A. Model' spoke on elements of an antenna-wave guide channel for multichannel radio relay lines; V.I. Krutikov on "Method of Broadband Balancing of the Antenna-Feeding Channel of Multichannel Radio Relay Lines"; M.E. Gertsenshteyn and A.M. Pokras on "Wave Guide Splitter with Variable Coupling"; A.L. Mikaelyan and A.K. Stolyarov on "Ferrite Valves Utilizing Ferromagnetic Resonance", and A.L. Mikaelyan and M.M. Koblov on "Application of Ferrites for Coaxial Valve Systems".

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Finally, the Electronics Section heard the following reports: S.I. Tetel'baum on "Inverse Wave Generators Without Delay-type Wave Guide Systems"; Ye. N. Bazarov and M.Ye. Zhebtinskiy on "Frequency Conversion in a Reflex Klystron"; Yu. A. Katman on "Parametric Phenomena in the Electronic Flux of a Transit Klystron"; S.M. Afanasov on "Electronic Retuning of Frequency of Cavity Resonators by the Reactive Diode Method"; I.F. Pes'yatskiy and D.N. Khorosh on "A Post-Acceleration System in Electron-Beam Tubes Permitting Retention of the Beam Deflection Sensitivity in Large Deflections of the Feeding Voltage in the Second and First Anodes". The Radio Wave Propagation Section heard 8 reports among which were the following: A.V. Prosin on "The Maximum Permissible Frequency Band Which Can Be Transmitted in Long Range Tropospheric Ultrashort Wave Propagation"; K.M. Kosikov discussed the prospects of utilizing oblique and return reflections from great distances and around-the-world echo; N.M. Boyenkov on "Influence of Solar Eclipse on the Ionosphere on the Basis of Observations of 30 June 1954 and 25 February 1952"; A.A. Grigor'yeva on "Results of Vertical Radiation Measurement of the Coefficient of Absorption of Short Radio Waves in Ionosphere"; V.E. Kashprovskiy read a report on long-range direction finding of thunderstorms. Very short summaries of the above reports are given.

SUBMITTED: June 16, 1957

AVAILABLE: Library of Congress

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108-7-11/13

AUTHOR: Not given
TITLE: Allunion Scientific Session, dedicated to the Day of Radio. "
(Vsesoyuznaya nauchnaya sessiya, posvyashchennaya "Dnyu" radio, Russian)
PERIODICAL: Radiotekhnika, 1957, Vol 12, Nr 7, pp 75-79 (U.S.S.R.)
ABSTRACT: About 2000 collaborators as well as representatives from foreign countries, among them also those of the American Society of Radio Engineers, participated in the session taking place from 20. to 25. May 1957.
The following participants spoke at the main session:
A.D.FORTUSHENKO on "ways of technical development of electro telecommunication".
E.A.GAYLISH on "Small parts for mass application".
G.D.GLEBOV on "Semiconductor devices".
S.I.KATAYEV on "Electrical Telescopy".
V.K.TKACH on "Use of radio methods in the research of pathological phenomena in organisms."
A short report was delivered by
A.L.MINTS on "Putting into operation of the radiotechnical- and electron part of the synchrophasotron for 10 billion electron-volt."

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Allunion Scientific Session, dedicated to the Day of Radio.

Twelve sections were working during the session, and a total of 175 lectures was held. The lectures are dealt with in short which were held under the supervision of V.A.KOTEL'NIKOV in the section for information theory, under the supervision of G.S.TSKIN in the section for semiconductor devices, under the supervision of A.N.KAZANTSEV in the section of radiowave propagation, and under the supervision of F.P.MESLATSEV in the section for radiotechnology.

ASSOCIATION: Not given
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress
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GLEBOV, Gera'd Imitriyevich; SHAMSHUR, V.I., red.; BORUKOV, N.I.,
tekhn. red.

[Absorption of gases by active metals] Pogloshchenie gazov
aktivnymi metallami. Moskva, Gos. energ.izd-vo, 1961. 183 p.
(MIRA 15:2)

(Absorption)

(Getters)

9.4310 (1139, 1143, 1159, 1150)

31836
S/194/61/G09/G10/956/032
D239/D301

AUTHORS: Anokhin, S.G., Glebov, G.Ts., Korotkov, A.S. and
Shorik, K.I.

TITLE: Technology for preparing p-n alloy junctions and a
study of their properties

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
no. 10, 1961, 14, abstract 10 D37 (V sb. Poluprovod-
nik pribory i ikh primeneniye, no. 6, M., Sov. rad-
io, 1960, 143-153)

TEXT: The technology of making n-p-n structures by the
alloy method is described, by virtue of which exact specific resist-
ivities can be obtained for the emitter, collector and base-regions
and simplified control of the thickness of the base layer. Transis-
tors prepared in this way exhibit good reproducibility of electrical
characteristics and work in a frequency range of several mc/s. The
use of alloying in conjunction with melt-back enables one to make

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Technology for preparing p-n alloy... ³¹⁸²⁶
S/194/61/000/010/056/82
D239/D501

$p^+ - n - n^+$ and $n^+ - p - p^+$ structures. An arrangement is described for pulling germanium monocrystal in the specified way, with p-n junctions the methods reduce to the grown-junction method. Study is made of the electrical parameters of structures of $p^+ - n - n^+$ and $n^+ - p - p^+$ which are indispensable for preparing high sensitivity devices with carrier-injection in the space-charge region. The distribution of impurities in the intermediate layer is evaluated by curves of junction-capacity against potential. Evaluation of the width of the intermediate layer and the distribution of electric field in the neighborhood of the locking layer of a p-n junction is made by potential distribution curves. The specific resistivity of the germanium in this layer lies in the range 5 to 20-50 ohm.cm. The width of this layer is about 20-40 microns. [A structure's note: Complete translation]

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GLEBOV, G.M.; (g. Murom); SIDORCHENKO, I.G. (g. Murom)

Do we need two different pressures for the main air pipes of the
TGMI diesel locomotive? Elek. i tepl. tiaga 2 no.5:43 '58.

(MIRA 12:4)

1. Starshiy inzhener-konstruktor Muromskogo teplovozostroitel'-
nogo zavoda (for Glebov). 2. Sborochnyy tsekh Muromskogo teplo-
vozostroitel'nogo zavoda (for Sidorchenko).

(Diesel locomotives)

(Air pipes)

ГЛЕБОВ, Г. Н.

Industrial operation of the fishing fleet Moskva, Pishchepromizdat, 1953. 195 p.
(54-38798)

SH283.G55

KLYKOV, Andrey Alekseyevich; GLEBOV, G.N., spetsred.; AYIZLAF, Yu.S.,
red.; TIOKHIN, L.M., tekhn.red.

[Concise dictionary of terms used in fishery] Kratkii slovar'
rybatskikh promyslovykh slov. Moskva, 1959. 78 p. (MIRA 12:10)
(Russian language--Dictionaries)
(Fisheries--Dictionaries)

GLEBOV, I.

Prevent the infection of *grain*. Muk.-elev.prom. 20 no.6:30 Je '54.
(MLRA 7:8)

1. Dnepropetrovskoye oblastnoye upravleniye GKhI.
(Seeds--Disinfection)

GLEBOV, I. A.

"Investigation of a Synchronous Generator with I. n. Transformer in the Station Circuit. Official opponents: L. E. Gruz'ev, Professor, Institute of Technical Sciences and M. I. Granskiy, Doctor, Institute of Technical Sciences.

Dissertation for the Degree of Candidate of Technical Sciences, Leningrad Institute for the Construction of Aircraft Equipment, 4 Nov 1951. (Mashinostroyeniye 1951, No. 5, pp 7-9).

ZAVALISHIN, D.A.; GLEBOV, I.A.

Quick-acting control of the voltage booster in the excitation
system of high-power hydrogenerators. Elektronika no.14:64-71
'56. (MIRA 12:12)

(Electric generators)

8(6)

SOV/112-59-1-544

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, No 1, p 71 (USSR)

AUTHOR: Glebov, I. A.

TITLE: Excitation Systems for High-Capacity Synchronous Machinery

PERIODICAL: Tr. Mezhdvuzovsk. nauchno-tekhn. konferentsii po dal'nim elektropredacham, 1956, Sekts. 3, L., 1957, pp 3-16

ABSTRACT: Two groups of special excitation schemes are considered: I - separate excitation and II - self-excitation. The following schemes of group I are briefly described: (1) a scheme with an exciter and a pilot exciter on the common shaft with the main-generator rotor; (2) a scheme with an auxiliary synchronous generator and with a separate high-speed exciter set; (3) a three-machine excitation system with a booster machine that was used for the first time at the Chastang and Otlmarsheim stations in France; (4) a scheme, suggested by the "Elektrosila" plant, with two commutator machines with the booster field controlled by high-capacity thyratrons; (5) an ionic-machine

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Excitation Systems for High-Capacity Synchronous Machinery

scheme which can be used where severe excitation forcing is needed; (6) a separate ionic excitation with two groups of valves developed by the "Elektroprivod" trust and by the "Ural'elektroapparat" plant jointly with the "Elektrosila" plant for a number of generators at the Kuybyshev hydroelectric station; (7) a system with one group of ignitrons connected in a simple 6-phase scheme developed by the "Elektrosila" plant, KB MEP, Lenenergo, and IEM AS USSR, with participation of some workers of the Svir' hydroelectric stations; (8) a scheme with two series-connected groups of valves supplied by an auxiliary synchronous generator; (9) a scheme with semiconductor valves and with an inductor-type high-frequency generator on a common shaft with the main turbine-generator rotor; (10) an excitation system with semiconductor valves, with slip rings, suggested for superpower turbine-generators by Professor D. A. Zavalishin jointly with the author of this article. The costs of installations using schemes (1) and (2) are compared for different

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Excitation Systems for High-Capacity Synchronous Machinery

rpms. An external characteristic is presented for scheme (6) (with two groups of ionic valves) which corresponds to K-4 forcing with the rated field current in the main generator

Advantages and disadvantages of the self-excitation system are noted, and principal measures tending to increase the reliability of this system (specifically, use of series boosting transformers) are listed. Applicable to the ionic self-excitation system with boosting transformers, methods for selecting the transformer-ratio optimum value developed by the author are briefly set forth. Advantages of ionic excitation are noted; requirements to the electrical industry whose acceptance would ensure successful application of the new excitation systems are formulated.

A.A.V.

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CLASS. T 4.

AUTHOR: Glebov, I. A. (Leningrad)

24-9-32/33

TITLE: Independent ionic excitation by means of two-rectifier bridge circuits. (Nezavisimoye ionnoye vzbuzhdeniye s dvumya mostovymi skhemami preobrazovaniya).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.9, pp.162-166 (USSR)

ABSTRACT: For increasing the reliability and ease of operation of ionic excitation systems of synchronous alternators, it is convenient to use for this purpose sealed single-anode rectifier valves. In view of the inadequate current ratings and inverse voltages of such valves, it may be necessary to use two equal rectifier circuits connected in parallel or in series in the case of alternators of large power ratings. A parallel connected circuit, shown in Fig.1, has been proposed by the TsKB of the Elektroprivod Trust for installation in the Stalingrad hydroelectric power station. A series connected circuit, Fig.2, has been proposed by "Elektrosila" and by the Electro-Mechanical Institute (Institut Elektromekhaniki) as one of the variants for exciting large power hydraulically driven generators. In both cases an auxiliary synchronous alternator mounted on the shaft of

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Independent ionic excitation by means of two-rectifier bridge circuits.

the main alternator is used as the power source; excitation of the auxiliary alternator can either be effected by an independent circuit or by the method of self-excitation. The main drawback of the series circuit consists of the higher losses in the arc gaps, it has, however, the advantage that operation can continue with one group of rectifier valves after putting the second group out of operation (Fig.2). In the case of increased peak excitation voltages, the rating of the supply source can be reduced by separate control of the anodic and cathodic groups of valves (the possibility of doing this was suggested by Ye. L. Ettinger), since in the case of such control the excitation current flows for a certain time only through the valves and not through the supply source; the disadvantage of such a control is that the stator will have even harmonics in addition to the odd ones. In this paper the fundamental relations are derived for a system of ionic excitation with two-rectifier bridge circuits for the steady state operation of the main alternator and the obtained results have been verified experimentally on

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GLEBOV, I.A., kandidat tekhnicheskikh nauk; KASHTELYAN, V.Ye., inzhener.

On increasing the transient stability of long transmission systems
up to the steady state level. Elektrichestvo no.10:5-11 0 '57.

(MLRA 10:9)

1. Institut elektromekhaniki Akademii nauk SSSR.
(Electric power distribution)

Glebov, I. A. 1970-11/19
 AUTHOR: Kostenko, M. P. A. S. U. S. S. R. and Glebov, I. A. A. S. S. R.
 TITLE: On the Control of Reactive Power in Self-Excited
 Valves (O upravlenii reaktivnoy moshch'yu pri pomoshchi
 upravlyayemykh ventilya)
 PERIODICAL: Vestnik Elektromekhaniki, No. 11, 1970, pp. 11-13 (USSR).

ABSTRACT: This article continues the article by
 venikov, Tsvetkov and Kostenko in the "Self Sources of
 Reactive Power and Their Utilization in the Utilization of
 Generators and Synchronous Motors" published in this
 number of the journal. Theoretical investigations are results
 of theoretical and experimental investigations of the main
 properties of self-excited valves under conditions
 with series-connected capacitor and source of reactive power.
 Experimental investigations are made of the main converters
 of the electrodynamic machine in the Institute of Electro-
 Mechanics of the A. S. U. S. S. R. A circuit with capacitors in
 series with the thyristor valve and the reactor is similar
 in properties to a circuit with a capacitor in series
 with a variable inductance. A diagram of the operation
 curve is given in Figure 1. The diagram of the operation is a

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rectifier with a series-connected capacitor. The experimental equipment is described and the calculated voltage and current curves given. They are shown to be in good agreement with the experimental curves.

Certain fundamental difficulties in controlling a circuit of this kind are described. The authors of the article under discussion have arrived at wrong conclusions about the amount of power required for control, and the reasons for this are explained with reference to the oscillograms in Figs. 4 and 5 of the present article.

A rectifier with series capacitors has a minimum reactive power, so that for smooth control to zero capacitive current compensating reactors must be provided. Very high reverse voltages will occur on the valves under certain conditions. The power that it is necessary to instal is considered closely and shown to be much greater than the previous authors supposed. It could be reduced by providing other methods of compensation for normal conditions and using the rectifier installation only for transient and fault conditions. Unfortunately, the disadvantages of the circuit then appear most clearly. The merits of using a rectifier with a capacitor in series therefore requires further

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study, particularly with ignition angles close to 90° . In the inductive condition the current can be regulated smoothly from zero, but smooth transition from the one condition to the other is not possible. However, the proposed circuit appears to have certain advantages, and in particular, low inertia.

It is stated that rectifier-inverter installations with series capacitors can only work with a capacitive load if the transformers have a fixed ratio. The limitations that this introduces are explained. The rectifier-inverter circuit has the same general properties as the rectifier circuit: there is a minimum capacitive current; when the reactive power output is increased the utilisation of the static condensers is decreased and smooth transition from capacitive to inductive current is not possible. The circuits differ in that the rectifier-inverter circuit can reduce the limiting value of the capacitive current by circulating active power. However, this circulation of active power impairs the utilisation of the static capacitors, as is shown in Fig.8. Thus, the rectifier-inverter circuit offers no advantages and is not recommended. It is considered that the subject requires further study.

The article is followed by brief contributions to discussion on the same paper, as follows:

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Dozent N.A. Mel'nikov of the All-Union Correspondence Power Institute (Vsesoyuznyy Zaochnyy Energeticheskiy Institut) considers the article interesting and important but thinks that no new sources of reactive power have been proposed, since only synchronous compensators or static capacitors have been considered. The article devotes insufficient attention to considerations of harmonics. The proposal to use induction generators in power stations will not find favour, if only on grounds of cost. Particular attention should be paid to the possible use of automatic control of static condensers and reactors with controlled valves.

Candidate of Technical Sciences Ye. Ya. Kazovskiy of the Elektrosila Works (Zavod "Elektrosila") considers that the equipment will be larger and more expensive than the authors think.

Doctor of Technical Sciences, Professor Kh.F. Fazylov of the Energetics Institute Ac.Sc. Uzbek SSR (Institut Energetiki AN Uz SSR) thinks the article important, especially concerning automatic control of static capacitors. However, he raises various objections to the circuits proposed and feels in particular that they will give rise to harmonics. He considers that it would be premature to recommend apparatus of this kind as

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are of lower inertia than rotating machines, they do not have the same advantageous reservoir of energy stored in rotating masses.

Candidate of Technical Sciences L.V. Tsukernik of the Ac.Sc. Ukrainian SSR (AN USSR) considers that valve switching of high-power electrical circuits using grid control has many other applications. For example, it should be possible to control effectively the braking load of generators in large remote power stations. The schematic circuit given by the authors will undoubtedly work, but further technical and economic comparison with other methods of achieving the same object is required. Some of the circuits are not sufficiently explained. There are 8 figures.

ASSOCIATION: Institute of Electro-Mechanics of the Ac.Sc. USSR
(Institut Elektromekhaniki AN SSSR)

AVAILABLE: Library of Congress.
Card 6/6

MUCHNIK, Abram Yakovlevich; PARYENOV, Konstantin Alekseyevich; Prinsipal
uchastiye: PTUSHKIN, A.T., kand.tekhn.nauk.; SOKOLOV, A.Ya., prof.,
retsensent; GLEBOV, I.A., dotsent, retsensent; YASTREBOV, P.P.,
dotsent, retsensent; KHMEL'NITSKAYA, A.Z., red.; DOBUZHINSKAYA,
L.V., tekhn.red.

[Electrical equipment of food industry enterpriss] Elektro-
oborudovanie pishchevykh predpriyatii. Moskva, Pishcheprom-
izdat, 1958. 437 p. (MIRA 12:8)
(Food industry--Electric equipment)

AUTHORS:

No. 23-21/51

Glebov, I. A., Candidate of Technical Sciences.
Zonov, S. F., Engineer

TITLE:

Tests on the Experimental Equipment With Gas-tube Excitation for
hydro electric Generators (Ispytaniye opyt'noy ustroystva ionnogo
vzbuzhdeniya gidrogeneratora)

PERIODICAL:

Elektricheskoye stroitel'stvo, No. 4, pp. 77-80 (1955)

ABSTRACT:

From 1951 to 1955 a device for the separate electronic excitation for the hydroelectric power station Nizhne-Svir' was developed and constructed. Here, the apparatus and its testing are described. A 6 phase transformation was selected for the purpose of guaranteeing a maximum operational safety. The circuit has a common cathode potential for all tubes and permits an operation with less than all tubes at a insignificant reduction of the rectified voltage in comparison to other circuits. The transformer can operate with or without a compensation coil. The system consists of a subsidiary synchronous generator, an electronic transformer (preobrazovatel') and of control, safety and signal

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100-6642131
Tests on the Trial Electronic Exciter Equipment for Hydroelectric Generators

devices. The type G-15-12-6 with a power of 350 kVA is used as synchronous generator. The electronic transformer possesses 6 ignitrons from the All Union Institute for Electrical Engineering, of the type I-200 with a mean value of the rectified current of 200 A and an inverse voltage of 1500 V. Tests showed that the system of electronic excitation with soldered-in single-mode valves guaranteed all demanded modes of operation (forced and suppressed excitation operation with less than all valves etc). The tests also showed that the electronic exciter also has a very fast action (the rise time being with in the range of 0.01 sec). The here given computation method for the current is confirmed by the experimental data. There are 4 figures, 2 tables and 2 Soviet references.

ASSOCIATION: Institut elektromekhaniki Akademii nauk SSSR Lenenergo
(Institute for Electrical and Mechanical Engineering
AS USSR)

SUBMITTED: November 1, 1957

Card 2/2

AUTHORS: Kostenko, M. P., Academician
Glebov, I. A., Candidate of Technical Sciences

TITLE: Electrodynamics Modelling as Scientific Research Method of Power Engineering Problems (Elektrodinamichesko modelirovaniye kak metod nauchnogo issledovaniya problem energetiki)

PERIODICAL: Vestnik Akademii Nauk SSSR (USSR) Nr 4, pp. 15 - 24

ABSTRACT: The development of energy systems confronts science with numerous technical and economic problems. To them belong, besides others, the stability increase of complicated energy-systems, automatic voltage and frequency-control of combined energy-systems, increase of the transmission-range of long distance electricity-transmissions, cooperating of a.c. and d.c. transmissions and others. The solution of these problems wants new research-methods to which belong electrodynamic modelling and modern calculating machines. In the last ten years electrodynamic models have been constructed at the Institute for Electromechanics of the AS USSR, the Moscow Institute for Power Engineering, the Scientific Research Institute of d.c., the Leningrad Polytechnical Institute and others. The results of these researches were used by the planning committees when they worked out long distance electricity transmissions (Moscow

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Electrodynamic Modelling as Scientific Research Method
of Power Engineering Problems

31-50-4 2/4

GES, Moscow GES). The essential elements of an electrodynamic model are: synchronous generators, transformers, lines, synchronous compensating devices and motors, asynchronous motors, mercury-steam vapor rectifiers, illumination load. Model aggregates of a power of 10-30 kVA are regarded as the best corresponding ones, but they should be universal enough to meet all demands of research. The dimensions of water pipes are determined by the differential equations by M. Ye. Zakhovskiy. Figure 1 shows the test scheme of a model-hydroaggregate with ion excitation system, figure 2 shows model-aggregates and transformers. In order to save copper and to reduce the influence of contact-connections it is expedient to use voltages of 2-3 kV, but for the driving of electric machines it is more convenient to use voltages of 220-350 V, which makes necessary the use of transformers. Furthermore the author mentions that the characteristics of the energy-system are not yet satisfactorily investigated which complicates the modelling and calculation of reception energy-systems. Therefore the experiments to determine the static and dynamic characteristics of energy-systems should be carried on. The voltage-current characteristics, connections and transformers of the energy-system are combined by a special

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Electrodynamic Modelling as Scientific Research Method
of Power Engineering Problems

30-58 - 1-2/11

high-voltage switch-board, where the wanted scheme is assembled. The common scheme contains a model for the transmission of d.c. which was developed and constructed by the Laboratory of the Leningrad Institute for Power Engineering of the AS USSR. The control of all model elements as well as the measuring and registering of all the processes is carried out in the control room (fig. 4) where there are also the automation apparatus. The preparation of an electrodynamic model for the solution of a special task is composed of two parts: first the model elements are adjusted after the given parameters and characteristics or, respectively their variation-range, second the complicated system is formed of the single components. The method of the electrodynamic model allows to find solutions for any part of the complicated system. These solutions are registered by oscillographic recording (fig. 5). Complicated energetic problems can best be solved by the use of modelling and the modern mathematical technique together. The latter is used at the Institute for Electrical Engineering of the AS Ukrainian SSR, at the Laboratory for Control Apparatus and -Systems of the AS USSR, at the Leningrad Polytechnical Institute, and others.

Card 3/4

Electrodynamic Modelling as Scientific Research Method
of Power Engineering Problems

EE-50-4-2/44

There are 5 figures, and 3 references, 2 of which are Soviet

1. Power plants. Development

Card 4/4

193-30-6-2/31

AUTHORS: Glebov, I.A., Candidate of the Technical Sciences
Kashatelyan, V.Ye., Engineer, Siryy, A.S., Engineer

TITLE: Electrical Braking of Synchronous Generators Connected
to Longdistance Transmission Lines (Elektricheskoye
tormozheniye sinkhronnykh generatorov, rabotayushchikh
na dal'niye linii elektropredach)

PERIODICAL: Elektrichestvo, 1958, Nr 6, p. 7-10 (USSR)

ABSTRACT: In this paper the results of the investigation of the
electrodynamic model of a trunk line of the type water-
-power plant Kuybyshev-Moscow, are shown. The model
generator had a rapidly effective excitation system and a
powerful regulator. It was possible to connect the load
resistances with the types of the generator as well as
with the high-voltage lines. In order to be able to
regulate the connecting and disconnecting of these
resistances a special wiring diagram has been constructed.
It could operate depending on time as well as depending

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105-58-6-2/35

Electrical Braking of Synchronous Generators Connected to Longdistance Transmission Lines

on the slip. In this case above all the electrical braking was investigated for the case of a shortest lagging time for the connecting of loading resistances in the existence of an automatic excitation control with small degree ($k = 1,5$). It is shown that a proper selection of the moments of connecting and disconnecting (of the loading resistances) guarantees a higher effectiveness of the electrical braking, even in the case of unknown amount of resistances and small degree of excitation. Such a control mechanism for connecting and disconnecting of the loading resistances can be realized according to the rotor slip of the synchronous generators, the size of which is determined by the character of the emergency conditions. The connecting takes place at a certain slip-value and the disconnecting in the case of a slip equal to zero, which corresponds to the moment when the rotor reaches the first maximal deviation. The following conclusions are drawn, based upon the investigation. 1) The electrical braking is most effective in combination with an automatic

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Electrical Braking of Synchronous Generators
Connected to Longdistance Transmission Lines

105-58-6-2/33

control of the excitation. No considerable degree of excitation is needed for the increase of the dynamic stability of distant transmission up to the level of static stability. The automatic excitation-control consists in this case essentially in securing the static stability.

2.) The regulation-mechanism proposed in this case, in connecting and disconnecting of the load resistances allows load resistances of constant power and thus guarantees the increase of the dynamic stability up to the level of static stability

3.)

Taking into consideration that the application of both the electrical and mechanical braking of synchronous motors consists in the uptake of the surplus output of their rotors in the case of emergency condition, the consequences mentioned here also essentially apply to mechanical braking. There are 6 figures and 7 references, 4 of which are Soviet.

Card 3/3

ASSOCIATION:

Institut elektromekhaniki Akademii nauk SSSR
(Institute for Electromechanics of the AS USSR)

SUBMITTED:

July 18, 1957

1. Power plants--Equipment
2. Generators--Control systems
3. Generators--Wiring diagrams

AUTHORS: 1. Y. Minami, A. I. Sobott, T. Saito et al. (1977, 1978-1979/20)
Theoretical Sciences, Polytechnic, Y. T., Engineer (a woman),
Mitsunobu, I. A., Engineer,
M. Kobayashi, M. A., Engineer, Department of Technical Education,
Tokyo, Japan; Dept. of Theoretical Sciences

TITLE: Study on the Non-Independent Coupled System
(3-Dimensional Coupled System of High Order)

REPORT NUMBER: Electronics, Japan, 1978, pp. 11-17 (7 pages)

ABSTRACT: This is a study of stability of a class of non-linear
coupled systems with the aid of the method of
excitation of each system in various order of
approximation. The main theoretical result of this study
concerns a linear system which is of interest. That is
to say, of a certain kind of a coupled type of
oscillation, this paper is limited to the case with
mutual poles with only one type of pole. The computations
presented in this paper demonstrate that non-independent
coupled systems can be analyzed into the continuous
input-output power with a certain restriction on the

Cont. 1, 4

Synchronous Generator for Large-Diameter Turbine-Driven System (SIV/198-1-10-1973)

The main of generator is a direct with very high power (7.5 MVA). In order to be able to obtain a non-stable output with variable current, the generator must operate with a large variable current. 1) A generator with a large diameter which is subjected for a long time to a high current on the basis of a and analysis. 2) The generator must be able to operate with a constant output power with loading and with variable current. 3) In order to guarantee a good excitation of a compensated synchronous generator, a large number of winding turns of excitation is required. It is required to have a similar behavior in a generator with a large diameter. There are 4 types of generator, and 2 of them, 1 and 2, of which are Soviet.

Page 2, 3

BOBROY, V.M.; VORONOV, A.A.; GLEBOV, I.A.; IVANOV, V.I.; KARPOV, G.V.;
KASHTELYAN, V.Ye.; SEMENOV, V.V.; SIROTKO, V.K.; SERYI, N.S.;
SUKHANOV, L.A.; URUSOV, I.D.; FETISOV, V.V.; FOMINA, Ye.N.;
KOSTENKO, M.P., akademik, red.; DOLMATOV, P.S., red.izd-vo;
SMIRNOVA, A.V., tekhn.red.

[Electrodynamic modeling of power engineering systems] Elektro-
dinamicheskoe modelirovanie energeticheskikh sistem. Pod red.
M.P.Kostenko. Moskva, 1959. 406 p. (MIRA 13:2)

1. Akademiya nauk SSSR. Institut elektromekhaniki.
(Electric networks--Electromechanical analogies)

8(0)

SOV/105-59-12-20, 24

AUTHORS:

Alekseyev, A. A., Bogoroditskiy, N. P., Glebov, I. A.,
Dembo, A. R., Drozdov, N. G., Kapitsa, P. L., Kulebakin, V. S.,
Neyman, L. R., Syromyatnikov, I. A., et al

TITLE:

Academician M. P. Kostenko. On His 70th Birthday and the
40th Anniversary of His Scientific and Pedagogic Activity

PERIODICAL:

Elektrichestvo, 1959, Nr 12, pp 81 - 82 (USSR)

ABSTRACT:

The oldest member of the editorial staff of the periodical
"Elektrichestvo", Mikhail Poliyevktovich Kostenko was born
the son of a physician in the District Voronezh in 1899.
He studied at the Peterburgskiy universitet (St. Peterburg
University) in 1907, in 1908 at the Peterburgskiy elektro-
tehnicheskiy institut (St. Peterburg Institute of Electrical
Engineering) was relegated in 1910, because of participation
in a students' revolt and exiled to the Perm' District.
1911 - 1913 he worked there as a telephone mechanic. 1913-1915
he studied and graduated from the Peterburgskiy politekhniches-
kiy institut (St. Peterburg Polytechnic Institute). In 1920
he was elected instructor for the Chair of Electrical
Machines at the same institute. 1922 - 1924 Kostenko was sent

Card 1/3

Academician M. P. Kostenko. On His 70th Birthday and SOY/105-59-12-20/23
the 40th Anniversary of His Scientific and Pedagogic Activity

to England as an engineer and made several inventions (pulse generator, commutator generator etc). He again started working at the Leningradskiy politekhnicheskii institut im. Kalinina (Leningrad Polytechnic Institute imeni Kalinin) in 1924, where he became docent in 1927, and professor and head of the Chair of Electrical Machines in 1930. Since 1924 he also worked at the "Elektrosila" Works as an engineer. He took part in the development of the new turbogenerator series from 1927 to 1930. His book "AC-Commutators" appeared in 1933. In 1935 - 1936 he worked as chief electrical engineer at the Khar'kovskiy elektronexhanicheskiy zavod (Khar'kov Electromechanical Plant). He then returned to the Leningrad Polytechnic Institute. In 1939 he was elected Corresponding Member of the AS USSR. Subsequently he worked in the komissiya otdeleniya tekhnicheskikh nauk AN SSSR po vyboru sistemy toka dlya elektrifikatsii zheleznykh dorog SSSR (Commission of the Department of Technical Sciences of the AS USSR for the current type selection for the electrification of railroads in the USSR). 1942-1944 a large-size mercury rectifier plant was installed within the system of the Uzbekenergo under

Card 2/3

Academician M. P. Kostenko. On His 70th Birthday and the SOV/103-59-12-20/93
40th Anniversary of His Scientific and Pedagogic Activity

his supervision. This work served as basis for the book published in 1946 together with L. R. Neyman and G. Nosiavde-
vich "Elektromagnitnyye protsessy v sistemakh s klyuchem i
vypryamitel'nymi ustanovkami" (Electromagnetic Processes in
Systems With Large-size Rectifier Installations). During the
same time and under his supervision, the simulation of large-
power systems by means of special machines was developed. He
returned to the Leningradskiy politekhnicheskij institut
(Leningrad Polytechnic Institute) in 1944. In 1956 he received
the Lenin prize. He is member of the GNTK at the Soviet Ministrov
SSSR (Council of Ministers, USSR), member of the technical
council at the "Elektrosila" Plant and at the Institut
postoyannogo toka (D.C.-Institute), delegate of the Verkhovnyy
Sovet SSSR (Supreme Soviet of the USSR), member of the
Presidium of the AS USSR and its representative in Leningrad.
There is 1 figure.

Card 3/3

GLEBOV, I.A., kand.tekhn.nauk; ZONOV, S.F., inzh.

Adjusting the ionic excitation device of a hydraulic generator. Elek.
sta. 30 no.1:53-56 Ja '59. (MIRA 12:3)
(Electric generators)
(Electric current rectifiers)

PHASE I BOOK EXPLOITATION

SOV/5337

Glebov, Igor' Alekseyevich

Sistemy vozbuzhdeniya sinkhronnykh generatorov s upravlyayemyi preobrazovatelyami (Excitation Systems of Synchronous Generators With Controlled Converters) Moscow, Izd-vo AN SSSR, 1960. 335 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut elektromekhaniki.

Resp. Ed.: V. N. Levin; Ed. of Publishing House: P. S. Dolmatov; Tech. Ed.: A. V. Smirnova.

PURPOSE: This book is intended for scientific workers and for electrical engineers in power plants and the electrical industry. It may be also useful to students in advanced courses at electrical engineering schools of higher education.

COVERAGE: The book discusses modern systems of quick-response excitation of high-power synchronous generators. Methods of

Card 1/7

Excitation Systems (Cont.)

SOV/5387

computing steady-state and transient operating conditions for various types of excitation systems with controlled rectifier converters are analyzed. The effectiveness of quick-response excitation in improving operational stability of power stations connected in parallel is also evaluated. The author thanks M. P. Kostenko, Academician, and D. A. Zavalishin, Corresponding Member, Academy of Sciences USSR, for their assistance. The participation of V. M. Bobrov and T. N. Skosareva, staff members of the Institut elektromekhaniki Akademii Nauk SSSR (Institute of Electromechanics of the Academy of Sciences USSR) and Yu. L. Kiselov and E. A. Gavrilov, members of Leningradskoye Rayonnoye Upravleniye Energokhozyastvom (Lenergo) (Leningrad Regional Power System Administration) is acknowledged. There are 147 references: 114 Soviet (including 1 translation), 21 English, 11 German, and 1 French.

TABLE OF CONTENTS:

Foreword

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GLEBOV I. A.

PHASE I BOOK EXPLOITATION

SOV/4172

Akademiya nauk SSSR. Institut elektromekhaniki

Sbornik rabot po voprosam elektromekhaniki, vyp. 3: Energeticheskiye sistemy, elektromashinostroyeniye, elektricheskaya tyaga, avtomatizirovannyy elektroprivod, avtomaticheskkiye i telemekhanicheskkiye sistemy, elektrosvarochnyye oborudovaniye (Collected Papers on Electromechanical Problems, no. 3: Power Systems, Electric Machinery Construction, Electric Traction, Automated Electric Drives, Automatic and Telemechanical Systems, Electric Welding Equipment) Moscow, Izd-vo AN SSSR, 1960. 374 p. Errata slip inserted. 5,000 copies printed.

Resp. Ed.: V.V. Sidel'nikov; Ed. of Publishing House: I.V. Suvorov; Tech. Ed.: R.A. Arons.

PURPOSE: This collection of articles is intended for scientific and technical personnel.

COVERAGE: This book is divided into sections according to the title. The scientific articles are preceded by a brief biography of Academician M.P. Kostenko, Lenin Prize Laureate, Director of the Institut elektromekhaniki AN SSSR (Institute of Electromechanics, Academy of Sciences USSR). References accompany most of the articles.

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Collected Papers (Cont.)

SOV/4-72

TABLE OF CONTENTS:

POWER SYSTEMS

Glebov, I.A. Operation of the Electronic Self-Excitation System of a Synchronous Generator in the Presence of Asymmetrical Faults [Short Circuits] 3

The author deals with single- and two-phase short circuits and two-phase shorts; he describes experimental testing of voltage balancing, the operation of an electronic converter under asymmetrical voltage conditions, and the special design features of a synchronous generator with electronic self-excitation for both steady and transient conditions.

Glebov, I.A., V.Ye. Kashtelyan, and N.S. Siryy. Improving the Dynamic Stability of Long-Range Electric Transmission by Means of Electric Braking of Synchronous Generators 15

The author describes tests on electric braking of synchronous generators using a model of the Volzhskaya GES-Moscow transmission line. They conclude that electrical braking is most efficient when combined with automatic control of the excitation.

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Collected Papers (Cont.)

SOV/1972

Ivancv, I.I. Voltage Asymmetry of Transformers Supplying Three- and Single-Phase A-C Traction Loads 35

The author investigates problems of simultaneous electrification of the main railroad lines in the USSR and the adjacent agricultural and industrial areas. Twenty-five kv single-phase a-c current has been introduced recently for the electrification of railroads in the USSR. Power must be supplied to both the asymmetrical traction loads and the symmetrical industrial and agricultural loads from the same three-phase transformers or from systems of single-phase transformers connected in an open delta. The results of the work conducted at the laboratory of the ENIN AN SSSR show that for traction loads not exceeding the nominal phase power of the transformer the asymmetry factor of full-phase transformers lies within the permissible limits of 3.5 to 4% for voltages of 110 kv and of 4.5-5% for voltages of 220 kv.

Glebov, I.A. Reactive Power Control by Means of Phase-Controlled Rectifiers 45

The author investigates rectifier and rectifier-inverter systems with series capacitors, paying special attention to the problem of controlling the capacitive current. He concludes that while systems using phase-controlled rectifiers have a very high speed of action, they require much too high an installed capacity. Therefore, for practical purposes they should be used under short-term operating conditions only.

Card 3/13

Collected Papers (Cont.)

SOV/4192

Buyevich, V.V. Simulating Prime Movers for Electrodynanic Models of Power Systems

63

As a model for the prime mover and its regulator in a power system, the author used a d-c motor controlled by a setup consisting of two parts: a special circuit supplying a voltage proportional to the turbine torque and a power amplifier. The experiments with the simulator setup were made at the IEM, Academy of Sciences USSR. The author examines requirements for quick action of the power amplifier which were determined by this method and which should be taken into account in models of the prime movers.

Glebov, I.A. Electronic Self-excitation of Hydro- and Turbogenerators Without the Use of Series Booster Transformers

79

The author describes various systems and operating conditions of simplified excitation systems. He illustrates them with examples drawn from measurements of the Volzhskaya GES imeni V.I. Lenin, the Volzhskaya GES, Moscow electric transmission line and the Bratskaya GES.

Card 4/13

GLEBOV, I.A. (Leningrad); KASHTELYAN, V.Ye. (Leningrad); SIRYY, N.S.
(Leningrad)

Effect of hydrogenerator parameters on the stability of long-
distance electric transmission. Izv. AN SSSR. Otd. tekhn. nauk.
Energ. i avtom. no.5:3-14 S-O '60. (MIRA 13:11)
(Hydroelectric power stations) (Electric power transmission)

BOBROV, V.M.; GLEBOV, I.A.

Use of an electrodynamic model for studying an ionic self-excitation system of large synchronous generators. Stor. rab. po vop. elektromekh. no.6:116-132 '61. (MIRA 14:9)
(Turbogenerators)

BOBROV, V.M., inzh.; GLEBOV, I.A., kand.tekhn.nauk; KASHTEL'YAN, V.Ye.,
inzh.; SIRYY, N.S., inzh.; GERTSENBERG, G.R., kand.tekhn.nauk

Effect of excitation systems on the stability of the parallel
operation of large turbogenerators. Elektrichestvo no.7:7-13
Jl '61. (MIRA 14:9)

1. Institut elektromekhaniki AN SSSR (for Bobrov, Glebov,
Kashtelyan, Siryy). 2. Vsesoyuznyy elektrotekhnicheskii
institut (for Gertsenberg).
(Turbogenerators)

GLEBOV, I.A., kand.tekhn.nauk; KASHTELYAN, V.Ye., inzh.; SHTRAFUN, Ya.N.,
kand.tekhn.nauk

Study of an ionic-semiconductor excitation system of large
turbogenerators. Elektrichestvo no.5:7-14 My '62. (MIRA 15:5)

1. Leningradskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta elektromekhaniki (for Shtrafun).
(Turbogenerators)

GLEBOV, I.A.

Study of transient processes in a large turbogenerator with electronic self-excitation and three-phase short-circuits. Sbor.rab.po vop.elektromekh. no.8:134-150 '63.

(Turbogenerators)

(MIRA 16:5)
(Electric power distribution)

GLEBOV, I.A.

Transient processes in independent electronic excitation systems of
large hydrogenerators. Sbor.rab.po vop.elektromekh.no.8:150-161 '63.
(MIRA 16:5)

(Turbogenerators)

(Hydroelectric power stations)

BOBROV, V.M.; GLEBOV, I.A.; SKOSYREVA, T.N.

~~SECRET~~
Determination of currents and losses in the damper winding of an auxiliary synchronous generator with independent electronic excitation. Sbor.rab.po vop.elektromekh,no.8:181-189 '63.

(MIRA 16:5)

(Electric generators)

KASHTELYAN, G.Ye., Engh.; ALIBOV, I.M., Engh.; KASHTELYAN, G.
R., Kard. Engh. Engh.

Effectiveness of the high-speed action of the excitation systems and conditions of automatic voltage regulation of large turbogenerators. Elektr. No. 10:22-31 0 1983. (MIRA 10:22)

1. Vsesoyuznyy elektrotexnicheskii institut (for Gertsenberg).

GLEBOV, I.A.; KASHELYAN, V.Ye.; NOVITSKIY, V.G.; SIDEL'NIKOV, V.V.;
SIROTKO, V.K.; MEL'NIKOV, N.A.; LUGINSKIY, Ya.H.; STERNINSON,
I.D.; YUREVICH, Ye.I.; TSUKERNIK, L.V.

Scientific problems in the field of automatic control and regulation of large electric power systems and their elements.

Sbor. rab. po vop. elektromekh. no.10:23-40 '63.

(MIRA 17:8)

GLEBOV, I.A.; SKOSYREVA, T.N.

Increasing the power factor of rectifiers using nonsymmetrical control and determination of the harmonic composition of phase currents. Sbor. rab. po vop. elektromekh. no.10:97-112 '63.
(MIRA 17:8)

KACHUKYAN, V.Ye.; GILSON, J.; JAMES, G. J.; GILSON, G.B.

Effect of temperature on the stability of the static
and dynamic equilibrium of a beam with a fixed end.
Izv. Akad. Nauk SSSR Tekhn. Mekh. 1977, No. 1, 1-8.
(Sov. J. Appl. Mech. 1977, No. 1, 1-8)

KASHTELYAN, V.Ye.; GLEBOV, I.A.

Modeling of the damping action of the rotor mass of a turbo-
generator. Sbor. rab. po v.p. elektromekh. no.10:175-186 '63.
(MIRA 17:8)

СИБИРЬ, 1984, 4-й изд. науч. РАХИМОВ, В.И., 1984.

Системы систем (of large and elementary systems) 1984.
Рязань, 1984, 35 no. 3, 16-76. 1984. 1984. 1984. 1984.

ACR 100
SERIALS SECT. DE/INTL/ET/REG/CE/DOC/010
AUTHOR: Glebov, I. A. (Doctor of technical sciences); Leginer, B. S. (Candidate of technical sciences)

ORG: Institute of Electromechanics, Leningrad (Institut elektromekhaniki)

TITLE: Basic trends in synchronous motor excitation study

SOURCE: Elektrichestvo, no. 11, 1965, 5-10

TOPIC TAGS: electric motor, direct current, semiconductor device, automatic control, electric engineering conference

ABSTRACT: Synchronous motors are being used in ever-increasing number in conjunction with various types of mechanisms. For excitation most Soviet and foreign synchronous motors utilize D.C. motors which, however, do not represent the best possible solution. Recently modern synchronous machines have been utilizing static systems based on semiconductor ionic converters. Although a considerable amount of research has been carried out in the Soviet Union in conjunction with the development and incorporation into practical use of various systems of excitation and automatic control of synchronous motors, still, in most cases, various solutions are adopted without sufficient justification. The present paper surveys and discusses, on the basis of 18 Soviet and Western references, basic trends in automatic control and synchronous

Card 1/2

UDC: 621.313.323 : 0.77.1

I 22431-66

ACC NR: AP6013614

motor excitation as recommended by the All-Union Conference dealing with these problems (Elektrichestvo (Electricity), 1964, No 7). The article covers separately the automatic excitation control and the various existing excitation systems. Detailed discussion of the existing solutions is supplemented by recommendations for further research and investigations. The authors thank Professor I. A. Serebryanikov for the valuable discussions contributing to the final preparation of the article. Orig. art. has: 6 figures. [JPRS]

SUB CODE: 09 / SUBM DATE: 07Dec64 / ORIG REF: 015 / UIN REF: 003

Card 2/2 BLG

L 28033-66

ACC NR: AT6000053

SOURCE CODE: UR/0000/65/000/000/0149/0169

AUTHOR: Glebov, I. A.

ORG: Institute of Electromechanics of AN SSSR (Institut elektro-
mekhaniki) 23
B+

TITLE: Some problems in analyzing and calculating the electromagnetic processes in the excitation system consisting of a synchronous generator and a grid-controlled rectifier

SOURCE: AN SSSR. Institut elektromekhaniki. Elektricheskiye mashiny; issledovaniya, voprosy teorii i rascheta (Electrical machinery; research problems in theory and design), Leningrad, Izd-vo Nauka, 1965, 149-169

TOPIC TAGS: electric power engineering, electric generator, nonrotary electric power converter

ABSTRACT: The problems discussed were related to the auxiliary synchronous generators directly driven by main water-wheel-alternator units for feeding rectifying excitation systems. The pulsating electromagnetic torque originated by the rectifier load conditions and causing vibrations was the first problem raised for consideration. With reference to his preceding works, the author presented the results of theoretical and experimental investigations made on the auxiliary generator of rectifier

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ACC NR: AT6000053

excitation system of the water-wheel type alternator installed at the Lower-Svir, Hydro Power Plant. A matrix method of calculations was used and the electric currents in damper windings were determined at various angles and time intervals. Then, the electromagnetic torque curves were traced for excitation systems with or without reactors. The curves were similar in both cases. The author's second aim was to calculate the average phase voltage which determine the magnetic flux amplitudes in auxiliary synchronous generators and transformers. The calculations were presented for a six-phase system with reactor. By using a series of phase voltage curves for different angles and by integrating the corresponding sine-wave equations, the limiting curves and areas for average phase voltages were graphically represented. The same method of calculation was applied to a six-phase system without reactor and to a three-phase bridge arrangement. The results of calculations (formulas) were summarized in a table. The third problem investigated by the author was connected with the study of various parameters of the auxiliary six-phase generators. The inductance caused by magnetic stray fields from slots was determined by using opposite currents in two in-series connected diametrical phases. The formulas were derived and the slot inductances of the second, fourth and sixth sequences determined. A formula for inductance caused by stray fields from front surfaces was also presented. The inductance from the differential stray fields of two opposite diametrical phases was calculated by using an approximate

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method described by the author in his published monograph. In the present article, an example of calculations applied to a particular case was expounded including the construction of a mmf diagram, the determination of magnetic permeances and the behavior of harmonics. The author also calculated the inductance of the auxiliary synchronous generator associated with the alternator of the Volga Hydro Power Plant im. V. I. Lenin. The results of calculation were somewhat lower than the experimental data obtained by measurements. The same auxiliary generator served as an example for the fourth problem dealing with determining the voltage distribution along the coils and with respect to the ground. A series of curves of voltage distribution along the rotor coils for various frequencies were presented and examined. This last analysis of voltage distribution was made in relation to the regulation angle of the excitation rectifying circuit. Orig. art. has: 16 formulas and 6 figures.

09, 10

SUB CODE: ~~EE~~ / SUBM DATE: None / ORIG REF: 003 / OTH REF: 000

Card 3/3 CC

L 28034-66 EWT(m)/EWP(t)/ETI IJP(c) JD/GS

ACC NR: AT6000054

SOURCE CODE: UR/0000/65/000/000/0180/0185

AUTHOR: Glebov, I. A.; Loginov, S. I. 4?

ORG: Institute of Electromechanics of AN SSSR. (Institut elektromekhaniki)

TITLE: Contactless synchronous motors with rotating semiconductor rectifiers

SOURCE: AN SSSR. Institut elektromekhaniki. Elektricheskiye mashiny; issledovaniya, voprosy teorii i rascheta (Electrical machinery; research problems in theory and design), Leningrad, Izd-vo Nauka, 1965, 180-185

TOPIC TAGS: electric power engineering, electric motor, selenium rectifier, semiconductor rectifier

ABSTRACT: This paper presents a study of the performance of excitation systems equipped with rotating selenium rectifiers. The synchronous and asynchronous exciters were studied in connection with synchronous motors. The synchronous excitation system was investigated by using a MDP-20-40 electrodynamic model (21 kw, 380 v, 32 amp, power factor 0.8, 1500 rpm) simulating a synchronous motor of 8000 to 10000 kw. The exciter was represented by a synchronous generator with a nonrotating excitation winding and a 5-phase rotating armature. This arrangement was shown in

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ACC NR: AT6000054

a connection diagram. An equivalent circuit diagram was used for studying the current regulation in the synchronous exciter. The equations for currents in transformers and rectifiers were derived and the voltage and currents ratios were formulated. The power factor changed very little with load. The investigation of the synchronous motor with a three-phase dynamic transformer (asynchronous exciter) was made by using an electric motor of 30 kw and 1000 rpm. The rotor of dynamic transformer was connected to the excitation winding of the synchronous motor via a 3-phase selenium rectifier. The non-rotating rectifier was connected to the synchronous motor rotor and to the dynamic transformer by means of slip-rings. The static stability was investigated for different adjustments of dynamic transformer. The most favorable conditions for operating dynamic transformer were at $S > 1$ i.e. when the braking stage was reached. The starting of a 30 kw synchronous motor with selenium rectifiers was also studied. The use of an additional non-linear "vilit" resistance in the rotor circuit was recommended. The voltage at starting was about twice as much as the rated voltage. As a consequence of the studies a preliminary arrangement was proposed for a 1000 kw, 6 kv, 750 rpm synchronous motor equipped with a contactless excitation system consisting of synchronous exciter and rotating silicon rectifiers. A general brief description of this proposed arrangement was given. ^{of 10} Orig. art. has: 2 diagrams and 5 formulas.

SUB CODE: ~~EE~~ / SUBM DATE: None / ORIG REF: 002 / CITH REF: 000

Card 2/2. *cc*

L 45519-66 SWT(1) GD

ACC NR: AT6016820 (A) SOURCE CODE: UR/0000/65/000/000/0152/0161

AUTHOR: Glebov, I. A.; Brilliantov, L. B.; Vadaturskiy, V. M.; Kovalenko, V. B.

ORG: none

TITLE: Induction starting of contactless synchronous motors with rotating semi-conductor rectifiers ⁵¹₅₀ ⁸¹₂₉

SOURCE: AN SSSR. Institut elektromekhaniki. Teoriya, raschet i issledovaniye vysokoispol'zovannykh elektricheskikh mashin (Theory, design, and research of electrical machinery in constant use). Moscow, Izd-vo Nauka, 1965, 152-161

TOPIC TAGS: synchronous motor, contactless synchronous motor, *electronic motor, semiconductor rectifier, thyristor*

ABSTRACT: As considerable overvoltages arise across rectifiers during induction starting (M. P. Barret, RGE, 1961, no. 9), two methods are suggested for limiting these overvoltages: (1) Permanent shunting of the rotor winding by a linear or nonlinear resistor; the values of an ohmic resistor and a "tervit" varistor and losses incurred by them are calculated for a Soviet-made SDN-1000-750 synchronous motor; (2) Permanent shunting by thyristors (G. M. Rosenberry,

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Applic. and Ind., 1960, no. 49); this method was experimentally tested on an exciter model driven by a 30-kw synchronous motor ("Engineer L. M. Vaysman took part in the tests"). It is found that the second method has substantial advantages. However, the thyristors suffer overloads as a result of short-circuit conditions during the pull-in period. This necessitates some measures for limiting the short-circuit currents (such as reducing the exciter magnetic flux, inserting resistors into thyristor circuits, etc.). If the synchronous motor is started with the exciter field-circuit closed, the motor starting torque will be lower in the first method or the pull-in torque will be lower in the second method. Orig. art. has: 4 figures and 6 formulas.

SUB CODE: 09 / SUBM DATE: 04Aug65 / ORIG REF: 004 / OTH REF: 002

ms
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ACC NR: AT6016819 (A) SOURCE CODE: UR/0000/65/000/000/0148/0151

AUTHOR: Glebov, I. A.; Loginov, S. I.; Kovalenko, V. B.; Vadaturakly, V. M.

ORG: none

TITLE: Results of an investigation of a contactless synchronous motor with rotating semiconductor rectifiers

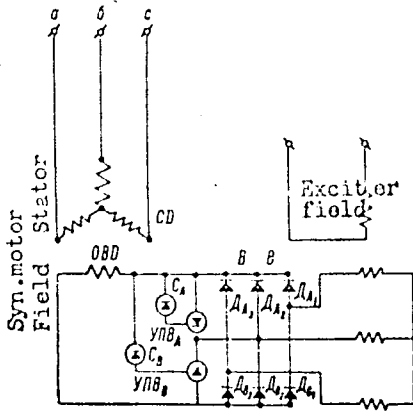
SOURCE: AN SSSR. Institut elektromekhaniki. Teoriya, raschet i issledovaniya vysokoispol'zovannykh elektricheskikh mashin (Theory, design, and research of electrical machinery in constant use). Moscow, Izd-vo Nauka, 1965, 148-151

TOPIC TAGS: synchronous motor, contactless synchronous motor, *electric motor,*
semiconductor rectifier

ABSTRACT: A contactless excitation system intended for a 1000-kw, 6-kv, 113-amp, 750-rpm synchronous motor (whose field winding would be supplied by rotating semiconductor rectifiers) (see figure) was tested by IEM and TsKBKEM institutes. The fundamental difficulty with rectifier breakdown by overvoltages arising during the induction-type starting was overcome by introducing protective "tervit" resistors or silicon thyristors. During the starting period, the positive-half-cycle motor current

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flows through the rectifiers and the negative-half-cycle current, through the thyristors. The motor behavior under such starting conditions was tested on an actual 1000-kw synchronous motor. Also, the exciter short-circuit through the thyristors at each negative half-cycle, during the pull-in period, was investigated and steps against this short-circuit were developed. A blueprint for the above special exciter was compiled. Orig. art. has: 1 figure and 1 table.

Contactless synchronous motor with rotating semiconductor rectifiers

SUB CODE: 09 / SUBM DATE: 04Aug65 / ORIG REF: 002

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ACC NR, AT6016821

(A)

SOURCE CODE: UR/0000/65/000/000/0162/0167

AUTHOR: Glebov, I. A.; Popov, Ye. N.

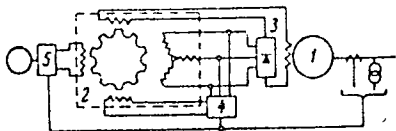
ORG: none

TITLE: Investigation of 6- and 12-phase operation of a rectifier and inductor-type generator

SOURCE: AN SSSR. Institut elektromekhaniki. Teoriya, raschet i issledovaniye vysokoispol'zovannykh elektricheskikh mashin (Theory, design, and research of electrical machinery in constant use). Moscow, Izd-vo Nauka, 1965, 162-167

TOPIC TAGS: electric generator, semiconductor rectifier, electric generator unit

ABSTRACT: The excitation system of "Elektrosila" 200-, 300-Mw (built) and 500-Mw (blueprint) turbogenerators consists (see figure) of these parts: 1 - main synchronous generator; 2 - inductor-type h-f generator (exciter); 3 - semiconductor rectifier; 4 - reactors; 5 - magnetic amplifier. The inductor-type generator having a relatively high reactance causes an undesirable current ripple in the turbogenerator field winding. As a remedy, a 12-phase rectification circuit with



Excitation system with inductor-type h-f generator

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ACC NR: AT6016821

two 30°-shifted 3-phase windings was suggested by R. A. Lyuter. The suggestion was experimentally verified on a 29-kw machine simulating 6- and 12-phase conditions. Oscillographically measured the ripple ratios were 52% for the 6-phase circuit and 27% for the 12-phase. However, the 12-phase system had a less favorable external characteristic ($U_A = f(I_A)$). Hence, further experiments are held desirable. Orig. art. has: 5 figures and 1 formula.

SUB CODE: 09 / SUBM DATE: 04Aug65 / ORIG REF: 003 / OTH REF: 001

Card 2/2

AUTHOR: Glebov, I.F., Engineer SCV/129-59-2-12/16
TITLE: High-frequency Hardening of Brake Pulleys (Zakalka
tormoznykh shkivev T.V.Ch.)
PERIODICAL: Metallovedeniye i Termicheskaya Obrabotka Metallov.
1959, Nr 2, pp 54 - 5 (USSR)
ABSTRACT: Using high-frequency heating, cast brake pulleys made of
the steel 55L are hardened to a depth of 3-4 mm for the
purpose of increasing their service life. The heating
current is supplied from a 100 kW rotary generator and the
hardening is effected successively by rotating the component
in a lathe, inside the field of an inductor. A pulley
of 300 mm is hardened in 4 min, whereby the circumferential
speed is 4 mm/sec. The cooling is effected with water at
15-20 °C. The power consumption is 40-45 kW. In a table,
the dimensional changes due to the hardening are given
for 2 pulleys. Figure 2 shows the cross-section of a cut
in which the hardened zone is hatched and dots indicate
the locations where the hardness was measured. On four
specimens on which the measurements were carried out,
the depth of the hardened layer did not exceed 3.5-4 mm.
Card1/2 The hardness values measured after heat treatment are

High-frequency Hardening of Brake Pulleys

SOV/122-59-2-12/16

entered in a table, p 35. On the basis of the experience gained, a final regime was established for surface hardening and tempering of such brake pulleys. Use of surface hardening with induction heating brought about a 3-4-fold increase in the service life of these pulleys without involving appreciable additional costs. There are 2 figures and 2 tables.

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GLEBOV, Il'ya Ivanovich, uchitel' matematiki; PAVLENKO, I.A., red.;
GORODILINA, T., tekhn.red.

[Exercises in inculcating arithmetic skills in grade 5-8
students of secondary schools; from work practice] Uprazhnenia
po privitiu vychislitel'nykh navykov uchashchiasia V-VIII klassov
srednei shkoly; iz opyta raboty. Moskva, Gos.uchebno-pedagog.
izd-vo M-va prosv.RSFSR, 1959. 66 p. (MIRA 13:5)

1. Opalikhovskaya srednyaya shkola Moskovskoy oblasti (for Glebov).
(Arithmetic--Study and teaching)

SHMAKOVA, V.I.; YUZHAKOVA, N.N.; REZNICHENKO, V.G.; GLEBOV, I.T.; VOLKOV, A.S.;
URZLYA, N.Ye.; BEEHTEREV, P.A.; RYS', G.I.; VORONINA, M.N.; GVOZDINTS-
KIY, I.D.; VARAKSINA, M.P.; MASTERSKIKH, M.A.; GONCHAROVA, V.A.;
BICHEVINA, A.N.; SOKOKIN, M.A., red.; GRIN', Ye., tekhn.red.

[Economy of Altai Territory during the past 40 years; a statistical
manual] Narodnoe khoziaistvo Altaiskogo kraia za 40 let. Sovetskoi
vlasti; statisticheskii sbornik. Barnaul, Altaiskoe knizhnoe izd-vo,
1957. 110 p. (MIRA 11:3)

1. Altayskiy kray. Statisticheskoye upravleniye. 2. Statisticheskoye upravleniye Altayskogo kraia (for all except Sorokin, Grin')
1. 3. Nachal'nik Statisticheskogo upravleniya Altayskogo kraia (for Sorokin)
(Altai territory--Statistics)

MIT'KIN, A.N., inzh.; GLEBOV, I.Ye., red.; GRAKOVA, Ye.D., tekhn.red.

[Determining forces applied in cold extrusion] Opredelenie usilii pri kholodnom vydavliivanii. Prilozhenie no 13 (17) k nauchno-tekhnicheskomu biulleteniu "Tekhnologiya avtomobilestroeniia." Moskva, Otdel tekhn.propagandy, 1957. 15 p. (MIRA 12:7) (Extrusion (Metala)) (Strains and stresses)

GLEBOVA, I.Ya., kand.veterin.nauk; MASLOKOV, A.V., kand.veterin.nauk

Etiology of berutoxemia in ducks. Veterinariia 40 no.9:10-12 S 163.
(MIRA 17:1)

1. Krasnodarskaya nauchno-issledovatel'skaya veterinarnaya stantsiya.

ZAKHAROV, S.F.; GLEBOV, K.K., glavnyy vrach.

Case of exudative pericarditis healed by puncture. Vest.khir. 73 no.3:56
My-Je '53. (MLRA 6:6)

1. Kairuzhskoye otделение Perzemayskoy perzoy bol'nitay Odesskoy oblasti.
(Pericarditis)

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GLEBOV, K.K.

Vascular tumors of the female urethra. Urologiya 23 no. 4:63-64 J1-Ag
'68 (MIRA 11:8)

1. Iz urologicheskogo otdeleniya Pervomayskoy 1-y bol'nitsy (glavnyy
vrach K.K. Glebov).

(URETHRA, neoplasm
angioma, in women (Rus))
(ANGIOMA, case reports
urethra, in women (Rus))