

KORNYUSHIN, L.K.; POPANDOPULO, D.N.; SILAYEV, A.F., spetsial'nyy redaktor;
TROFIMOV, A.V., tekhnicheskii redaktor

[Patternmaking; work experience of stakhanovite ship repairmen]
Izgotovlenie modelei; opyt stakhanovtsev sudoremonta. Moskva,
Izd-vo "Morskoi transport," 1952. 83 p. [Microfilm] (MLRA 7:10)
(Patternmaking)

3

② MET

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Metallurgy and Metallography

Some properties of powders obtained by atomization.
V. I. Frangula and G. E. Hargy. *Vestnik Mashinostroyeniya*
39, No. 9, 88-91(1958).—Of the 2 methods for the production
of molten Fe or steel by compressed air, the latter is preferable.
Powders contg. 0.3-4.4% C were prepd. by the compressed
air method. The powders were subjected to a reducing heating,
the fraction above 0.3 mm. was screened out, and the specimens
for testing were prepd. by pressing. The pressed specimens were
then fired at 1100° for 2 hrs. and tested. Pressed under
12,000 kg./sq. cm. the compressed air specimens had a tensile
strength of 33.5 kg./sq. mm. The centrifugally pulverized
powders could not be pressed above 10,000 kg./sq. cm. because
they sepd. into layers. Under all pressures the tensile strength
of specimens made from compressed air atomized powders was
greater than of specimens made from centrifugally atomized
powders. M. Kosh.

SILAYEV, A. F.

SILAYEV, A.F.; PROSVIRIN, V.I., professor, doktor tekhnicheskikh nauk;
BAKOVSKIY, V.S., kandidat tekhnicheskikh nauk.

Production of iron, steel and iron alloy powders by pulverization.
[Trudy] TSMITMASH no.56:124-147 '53. (MLRA 7:6)
(Powder metallurgy)

SILAYEV, A-F

Moscow

SPRAVOCHNIK PO LITYIM SPLAVAM.
Handbook on casting alloys.

*Used
found*

By A.F. Silayev.

Published in Moscow, 1954.

In 2000 copies.

The book is addressed to designers and foundry technologists particularly those concerned with shipbuilding and repairing. It gives the basic principles of the technology of casting, rules for the design of castings and also the physical mechanical and casting properties of alloys used for castings in shipbuilding and general engineering.

D *DJ* *VHK* *LFH*

SILAYEV, A.F.

Results of a scientific-technical conference on steel casting.

(MIRA 7:4)

Lit.proizv. no.2:20-21 Mr-Ap '54.

(Steel castings)

FIL', Ye.V.; CHERNUSHEVICH, V.A., inshener, retsenzent; SILAYEV, A.F.,
kandidat tekhnicheskikh nauk, redaktor; POPOLOV, Ya.M., redaktor;
MATVEYEVA, Ye.M., tekhnicheskiy redaktor.

[Organisation of foundries] Organizatsiia litynykh tsakhov. Moskva,
Gos. nauchno-tekhn. izd-vo mashinostroitel'noi lit-ry, 1955. 207 p.
(Foundries) (MLRA 9:4)

SILAYEV, A. F.

KLOCHNEV, N.I.

Review of A. F. Silaev's book "Handbook on cast alloys." Lit.
proizv. no. 4:30-31 sp '55. (MLRA 8:6)
(Alloys) (Silaev, A.F.)

SILAYEV, A.F.

Summary of the scientific and technical session on the quality improvement of steel castings. Lit.proisv. no.10:31-32 0'55.
(Steel castings) (MIRA 8:12)

SILAYEV, A., kandidat tekhnicheskikh nauk

"Ways of economizing nonferrous metals." B.P.Siniutin, V.E.Shirochenko. Reviewed by A.Silayev. Mor.flot 15 no.8:31-32 Ag'55.
(MIRA 8:10)

(Nonferrous metals) (Siniutin, V.P.) (Shirochenko, V.E.)

SILAYEV, A. F.

USSR/ Engineering - Metals testing

Card 1/1 Pub. 128 - 14/28

Authors : Silayev, A. F., Cand. of Mech. Sc.; and Prosvirin, V. I., Dr. of Mech. Sc., Prof.

Title : Granulometric composition and the form of powder particles obtained with an atomization method

Periodical : Vest. mash. 35/6, 61 - 64, Jun 1955

Abstract : Various types of metallic powders were tested to determine the influence of physical characteristics of liquified metal and its atomization methods, on the granulometric composition and form of powder particles. Individual tests are briefly described, and technical data is given. Illustrations; table; graphs.

Institution :

Submitted :

SILAYEV, A. F.

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Distr: 4E2c

¹⁸
Heat Resisting Cast Irons for Casting Furnace Accessories.
A. F. Silayev and A. A. Alkizants. (Lizhnie Protsvedeniya,
1953, (2), 29-29). [In Russian]. The compositions and
properties of some alloy cast irons for high temperature ser-
vice in furnace structures are discussed. A silicon iron
alloyed with chromium is recommended and directions for its
production are given.—S. K.

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SILAYEV, A.F., kandidat tekhnicheskikh nauk.

Equipment for producing powdered metals from melts. Vest. mash.
36 no.10:29-31 0 '56. (MLRA 9:11)
(Powder metallurgy)

SILAYEV, A.F.
 Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti.
 Liteynaya sektsiya

Uluchsheniye kachestva stal'nykh otlivok; trudy Vsesoyuznogo
 soveshchaniya (Improving the Quality of Steel Castings;
 Transaction of the All-Union Conference) Moscow, Mashgiz,
 1958. 214 p. 4,500 copies printed.

Eds.: Klauzen, A.I., Engineer; and Silayev, A.F., Candidate of
 Technical Sciences. Ed. of Publishing House: Manakin, N.V.;
 Tech. Ed.: Shigin, S.T.; Managing Ed. for literature on heavy
 machine building (Mashgiz): Golovin, S.Ya.

PURPOSE: This book is intended for engineers, technicians, and
 scientific workers at research institutes and plants, as well as
 for students at advanced technical schools.

COVERAGE: The book is a collection of papers presented at a scientific
 and technical conference on the improvement of the quality of steel.

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Improving the Quality of Steel Castings (Cont.) 549

castings. The conference was organized by the Casting Section of NTOMASHPROM (Scientific and Technical Society of the Machine-Building Industry) in March, 1955. The articles present the results of investigations concerned with the processes of melting, pouring, and solidification, as well as with interaction between mold and casting, heat treatment of steel, and correction of casting defects. For references, see Table of Contents.

TABLE OF CONTENTS:

Silayev, A.F., Candidate of Technical Sciences. Ways of Improving the Quality of Steel Castings 3

The author states that casting rejects at Soviet foundries average 3.5 percent of the total output. Two important causes of this, he says, are outmoded production methods and inadequate supply of proper

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Improving the Quality of Steel Castings (Cont.) 549

materials and equipment. He points out that the USSR lags behind the USA in mechanization and automation of casting processes. He recommends the speedy adoption of modern, efficient technological methods and, above all, an intensification of research in casting methods.

Berg, P.P., Professor, Doctor of Technical Sciences. Effect of Mold Material on the Quality of Castings 11

The author discusses gas cavities, hot cracks, dimensional accuracy, pick-up, surface quality, and surface alloying in connection with the nature of the mold material.

Borovskiy, Yu. F., Engineer; Gulyayev, B.B., Professor, Doctor of Technical Sciences. Increasing the Surface Smoothness of Castings 19

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SILAYEV, A.F.
PONOMAREV, Viktor Aleksandrovich; PASTERNAK, Nina Aleksandrovna; YERENBURG,
Yelizar Yefimovich; CHERNYSKIY, Ye.A., retsentsent; SILAYEV, A.F.,
red.; UVAROVA, A.F., tekhn. red.

[Increasing labor productivity in casting sections] Povyshenie
produktivnosti truda v liteinykh tsakhakh. Moskva, Gos.
nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 249 p.
(Iron founding) (MIRA 11:9)

SOV/128-59-3-17/31

18(7)

AUTHOR:

Kreshchanovskiy, N.S. Candidate of Technical Sciences,
Silayev, A.F., Candidate of Technical Sciences,
Sheshenev, M.F., Engineer

TITLE:

The Influence of Small Admixtures of Foreign Matter
on the Structure and on the Heat Resistance of Large
Castings of Steel Type 12Kh11V2WF-L.

PERIODICAL:

Liteynoye Proizvodstvo, 1959, Nr 3, pp 39-42 (USSR)

ABSTRACT:

It has been realized that the use of austenite type steel for castings of turbines and fittings operating at steam temperature of 600° to 610° Celsius is not suitable. The reasons are: high price and weak technological qualities. Therefore during the recent years for this purpose perlite type and semi-ferrite type steel have been introduced in the Soviet Union and in foreign countries. The tests showed that perlite type and especially semi-ferrite type steel of the type Kh11 at correct alloying with Mo, W, V, and Nb is able to operate at the above said temperature conditions.

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SOV/128-59-3-17/31

The Influence of Small Admixtures of Foreign Matter on the Structure and on the Heat Resistance of Large Castings of Steel Type 12 XII V2 NMF-L

In case these foreign structure particles are mixed at correct proportion, this alloyed steel allows the production of large steel castings, which have the necessary heat resistance. This paper describes the tests made with steel of the type 12 XII V2 NMF-L, to which several small admixtures have been added. Laboratory and shop tests had been made with barium, cerium, zirconium and calcium metal. Small admixtures of these elements have promoted the crystallization of the steel. The shop tests have been carried out in an electric furnace of 4 tons capacity. These tests have been compared with the table established by Larsen-Miller. The best result showed an alloy with added aluminum, barium, and calcium. Tensile strength improved to 9,4 kg per square millimeter from 7 kg per sq. mm of steel without any admixture. Correspondingly the heat resistance was higher too. There are 7 tables, 9 graphs and 1 micro-photo.

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SOV/129-59-5-9/17
AUTHORS: Cand. Tech. Sci. A.F. Silyayev, and Engineer Ye.F. Dubrovskaya
TITLE: Influence of Sulphur ~~on~~ the Mechanical and Refractory Properties of Cast Pearlitic Steel 15Kh1M1FB (Vliyaniya sery na mekhanicheskiye i zharoprochnyye svoystva perlitnoy litoy stali 15Kh1M1FB)
PERIODICAL: Metallovedeniye i Termicheskaya Obrabotka Metallov, 1959, Nr 5, pp 40-44 + 1 plate (USSR)
ABSTRACT: The authors investigated the steel produced in a basic electric arc furnace of 0.5 ton capacity and sub-divided into three equal fractions of 150 kg each. The fractional pouring was carried out for the purpose of verifying experimentally the influence of sulphur (0.010, 0.030 and 0.066%) on the refractory properties in cases in which the contents of other elements remain strictly equal. The analysis of this steel was as follows: 0.18% C; 0.30% Si; 0.61% Mn; 1.42% Cr; 1.20% Mo; 0.33% V; 0.51% Nb; 0.12% Ni; 0.012% P. The lower limit of sulphur content in the steel (0.010%) is determined by the technology of the smelting process in an electric furnace with a basic lining; the average sulphur content, 0.03%, corresponded with the upper
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SOV/129-59-5-9/17

Influence of Sulphur on the Mechanical and Refractory Properties of Cast Perlitic Steel 15Kh1M1FB

specified limit whilst the maximum content was twice the permissible value. The results of the analysis for non-metallic inclusions are entered in Table 2. The mechanical properties of the steel after two regimes of heat treatment (V and P) are entered in Table 3. Heat treatment regime V consisted of homogenization annealing for 90 minutes at 1090 °C, normalization from 1050 °C, holding at 770 °C for 5 hours and cooling in air. The heat treatment P consisted of homogenization annealing at 1050 °C for 90 minutes, annealing at 1050 °C for 90 minutes, holding at 770 °C for 5 hours, and cooling in air. Results on the sustained strength and on creep are entered in Fig 3 and Table 4. It is concluded that an increase to 0.06% in the sulphur content of the perlitic steel 15Kh1M1FB reduces appreciably the plasticity in tension and the impact strength. Sulphur reduces the reserve of plasticity of the steel and accelerates its embrittlement at elevated test temperatures. In long-duration tests, sulphide inclusions are frequently foci of failures. The sulphur content of perlitic steel

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SOV/129-59-5-9/17

Influence of Sulphur on the Mechanical and Refractory Properties of
Cast Perlitic Steel 15Kh1M1FB

intended for operation at 580 to 610 °C should not exceed
0.020 to 0.025%. Such a limitation on the sulphur
content does not complicate the technology of smelting
of steel of higher quality and corresponds with the
normal process of smelting under white slag.

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There are 3 figures and 4 tables.

ASSOCIATION: TsNIITMASH

69384

S/129/60/000/06/001/022
E073/E535

18.1130

AUTHORS:

Silayev, A.F., Fedortsov-Lutikov, G.P. and Sheshenev, M.F.
Candidates of Technical Sciences

TITLE:

Properties of Castings of the Steel 12Kh11V2NMF-L

PERIODICAL:

Metalovedeniye i termicheskaya obrabotka metallov,
1960, Nr 6, pp 2-7 (USSR)

ABSTRACT:

Use of austenitic steels for cast components of turbines and fittings operating at 600 and 610°C is inadvisable due to their high cost, low thermal conductivity and relatively poor technological properties. Therefore, intensive research work is being carried out in various countries to develop for this purpose pearlitic class steels and steels with 11 to 13% chromium. Investigations showed that if properly alloyed, pearlitic steels, and particularly stainless chromium steels of the type 1Kh13, are suitable for operation in this temperature range. The subject of the work described in this paper was to determine the effectiveness of small additions of horophilic elements (barium, calcium, cerium) on the properties of type 12Kh11V2NMF steel. For the purpose

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Properties of Castings of the Steel 12Kh11V2NMF-L

of comparison, one melt (7-104) was produced without any additions. The chemical compositions of the commercial heats used in the experiments are entered in Table 1. Optimum heat treatment for this steel proved to be as follows: homogenization at $1090 \pm 10^{\circ}\text{C}$; normalization at $1050 \pm 10^{\circ}\text{C}$; tempering at $700 \pm 10^{\circ}\text{C}$ followed by cooling in the furnace. It was found that in the case of continuous cooling from the range of the austenitic state with speeds below 250°C/hr , there will only be pearlitic transformation, whilst for larger cooling speeds (250 to 3000°C/hr) pearlitic and intermediate transformations take place. The plot, Fig 1, contains data on the mechanical properties of this steel at 20°C for a melt containing Al-Ba-Ce alloying additions. The plot, Fig 2, shows the changes in the impact strength of steel as a function of the test temperature for material containing Al-Ba-Ce additions (curve a), for material without any additions (curve b) and for material with Ca additions (curve B).

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Properties of Castings of the Steel 12Kh11V2NMF-L

The relatively high structural stability of the material is evident from the data on the changes of the chemical composition of the residue produced by electrolytic dissolution of the steel after various ageing regimes, Table 2. Table 3 and Fig 3 show the results of long-run strength tests (up to 2600 hours) in the temperature range 600 to 670°C; the highest values were obtained for material containing small additions of Al-Ba-Ca. Under all test conditions fracture of the specimens occurred along crystallites which were intensively deformed in the neighbourhood of the fracture, as can be seen from the microstructure of a specimen fractured at 610°C after having been stressed for 1011 hours with a stress of 15 kg/mm². Fig 5 shows a plot of the creep limit of steel at 610°C for steel containing only Ca additions and for steel containing Al-Ba-Ca additions. The following conclusions are arrived at:

- 1) Introduction into the steel of a small quantity of a Al-Ba-Ca alloy does not result in any pyro-effect, brings

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Properties of Castings of the Steel 12Kh11V2NMF-L

about a considerable improvement of the technological properties of the tested steel, an increase in the impact strength and ensures a higher degree of hardening in the original state and a less intensive process of softening during operation.

3) Introduction into steel of small quantities of Al-Ba-Ca alloys leads to a reduction of the nonuniformity in the properties along the cross-section and this appears to be due to a greater uniformity of the structure, which leads to a reduction of the size effect.

3) Steel specimens from a 1.3 ton casting, produced with a small addition of Al-Ba-Ca alloying material and subjected to "soft" heat treatment, had the following high temperature properties:

$$\sigma_{dr10^5}^{600^{\circ}C} = 10 \text{ kg/mm}^2; \quad \sigma_{dr10^5}^{610^{\circ}C} = 9 \text{ kg/mm}^2; \quad \sigma_{n \cdot 10^{-5}}^{610^{\circ}C} = 5.8 \text{ kg/mm}^2$$

(dr = do razrusheniya - to failure).

There are 5 figures, 3 tables and 3 Soviet references. ✓

ASSOCIATION: TsNIITMASH

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1.1710
1.2300

26020

S/135/61/000/008/010/011
A006/A101

X

AUTHORS: Silayev, A.F., Candidate of Technical Sciences, Ignat'yev, N.A.,
Engineer

TITLE: On the expediency of heat treatment of welded heavy press frames

PERIODICAL: Svarochnoye proizvodstvo, no. 8, 1961, 40 - 43

TEXT: There are different opinions on the expediency of heat treatment of welded structures for removing residual stresses. The permissible magnitude of residual stresses in welded units and machines has as yet not been established. Therefore the gathering of experimental data obtained from specimens and natural welded structures is of considerable importance. For this purpose an investigation was made by the authors and Yu.N. Zaytsev, G.I. Shevlyakov, V.A. Ignat'yev, and P.V. Novichkov. Tests were performed with 120 kg specimens welded from 60 mm thick steel. Reactive stress fields were obtained by welding-on corner plates. Residual stresses in the built-up metal, the heat-affected zone and the base metal were determined by the diffraction-roentgenographical method. Vibration of specimens as a means of reducing residual stresses was for the first time checked in the Soviet Union, yielding satisfactory results. Moreover, residual

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S/135/61/000/008/010/011
A006/A101

On the expediency ...

stresses were directly determined on welded press frames, manufactured at the Voronezh Plant of Heavy Mechanical Presses without heat treatment of the welded structures. K274A and K862 frames were subjected to welding, heat treatment, and vibration; stresses from useful loads were determined. The weld joints were subjected to ultrasonic control with the aid of flaw detector УЗД-7Н (UZD-7N). The distribution of residual stresses was studied by the tensometrical method with or without partial trepanation of the frames. Standard pickups of 25 mm base, 120 ohm resistance and a coefficient of sensitivity $K = 2.1$ were glued on both the internal and external sides of the frames in order to estimate approximately the bending stresses determining the deformation of the frame. The deformation of the pickups was measured with an automatic electronic ЭИД-3 (EID-3) device. The experiments performed showed that heat or other treatment of welded frames was not expedient. This conclusion is confirmed by the results of analyzing the operation of welded frames which were not heat treated, namely: 1) cracks and other defects caused by residual stresses were not observed in welded press frames and shears, operating over 4 - 5 years; 2) the accuracy of the presses is satisfactory; losses in motor power during idle run are low; 3) the fatigue strength of frames in complex-strained state in the presence of stress concentra-

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A006/A101



On the expediency ...

tors such as poor fusion, is satisfactory. On the basis of results obtained the authors recommend the organization of a model experimental shop for welded structures at the Voronezh plant without a heat treatment department. There are 6 figures, 1 table and 5 Soviet-bloc references.

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SILAYEV, A.F. (Moskva); RAKOVSKIY, V.S. (Moskva)

Obtaining iron and ferroalloy powders by atomizing. Porosh.
met. 2 no.4:83-89 J1-Lg '62. (MIRA 15:8)
(Powder metallurgy)

PHASE I BOOK EXPLOITATION

SOV/6539

Silayev, Aleksandr Fedorovich, Georgiy Petrovich Fedortsov-
Lutikov, and Mikhail Fedotovitch Sheshenev

Khromistyye zharoprochnyye stali dlya energomashinostroyeniya
(Heat-Resistant Chromium Steel for Power Machine-Building)
Moscow, Metallurgizdat, 1963. 183 p. Errata slip inserted.
2200 copies printed.

Ed.: R. M. Kireyeva; Ed. of Publishing House; A. L. Ozeretskaya;
Tech. Ed.: L. B. Dobuzhinskaya.

PURPOSE: This book is intended for engineering personnel engaged
in designing, building, and operating power units. It may
also be useful to research workers in metal science and to
students at technical schools of higher education.

COVERAGE: The book presents data on chemical composition,
structure, and properties of heat-resistant chromium steels
used in power machine-building. Basic laws governing the

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Heat-Resistant Chromium Steel (Cont.)

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alloying of heat-resistant, nonaustenitic steels and other problems of the heat-resistance theory are discussed. Engineering recommendations are made on the whole cycle of heat-treatment procedure applied to indicated steels. No personalities are mentioned. There are 63 references; 44 Soviet, 16 English, and 3 Czech.

TABLE OF CONTENTS:

Introduction

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PART I. SOME PROBLEMS OF HEAT-RESISTANCE
THEORY AND BASIC PRINCIPLES OF
ALLOYING NONAUSTENITIC STEEL

Ch. I. Modern Concepts of Mechanisms of Plastic Deformation
and Fracture Under Creep Conditions

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1. Mechanism of plastic deformation

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ALEKSEYEVA, F.N. (Moskva); MATYUSHENKO, R.S. (Moskva); RAKOVSKIY, V.S. (Moskva);
SILAYEV, A.F. (Moskva)

Role of secondary distortions in the recrystallization process during the
sintering of specimens compressed from high melting metal powders. *Izv.*
AN SSSR. Otd. tekhn. nauk. Met. i gor. delo no.1:97-99 Ja-F '63.

(MIRA 16:3)

(Powder metallurgy)

(Creep of metals)

ALEKSEYEVA, F.N. (Moskva); MATYUSHENKO, R.S. (Moskva); RAKOVSKIY, V.S.
(Moskva); SILAYEV, A.F. (Moskva)

Process of compacting high-melting metal powders during pressing.
Izv. AN SSSR. Otd. tekhn. nauk. Met. i gor. delo no.2:100-103
Mr-Ap '63. (MIRA 16:10)

L 32225-65 EWP(e)/EWT(m)/EWP(w)/EPP(n)-3/EWR(d)/T/EWP(t)/EWP(b) Pf-L/Pu-L IJP(c)

ACCESSION NR: AP4046739 JD/JG S/0226/64/000/005/0001/0008

AUTHORS: Alekseyeva, F.N. (Moscow); Matiyushenko, R.S. (Moscow); Rakovskiy, V.S. (Moscow); Silayev, P.P. (Moscow)

TITLE: On the role of secondary distortions during the compacting processes in pressing and recrystallization during the sintering of refractory metals

SOURCE: Poroshkovaya metallurgiya, no. 5, 1964, 1-8

TOPIC TAGS: refractory metal, compacting, tungsten, molybdenum, niobium, chromium, secondary distortion, microdistortion, afterflow, microstress, recrystallization grain growth control, sintering temperature

ABSTRACT: An analogy was established in the character of the process of compacting 15-mm-high cylindrical W, Mo, Nb, and Cr specimens. An accumulation of microdistortions was observed, their size reaching a maximum at 4000 to 6000 dyne/cm². A further rise in pressure had no effect on the microdistortions. The pattern of changes in the values of afterflows was found to coincide with the pattern of changes that occur under the effect of secondary microstresses. Secondary microdistortions exerted a substantial influence on the size

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L 32225-65

ACCESSION NR: AP4046739

of the recrystallization grains. An increase in these microstresses was accompanied by an intensive growth of the recrystallized grains until they reached a stage at which a saturation with microstresses occurs. Subsequently, the grain sizes stabilized and the effect of secondary stresses was negligible. At elevated sintering temperatures and with long holding periods, the recrystallized grains displayed a conspicuous tendency towards intensive growth. Porosity was also found to affect the character and the activity of recrystallization during sintering: it declined under increasing pressures and, consequently, the contact surface expanded which, in turn, enhanced the recrystallization process. The experimental results will make it possible to adjust the pressure and the sintering conditions with a view to grain size control, which may have a beneficial effect on rupture strength and creep resistance of refractory metals and alloys. Orig. art. has: 8 figures

ASSOCIATION: None

SUBMITTED: 18Apr63

SUB CODE: MM

NR REF SOV:004

ENCL: 00

OTHER: 000

Card - 2/2

L 8730-65 EWT(m)/EPF(n)-2/EPR/EWP(b) Ps-4/Pu-4 AS(mp)-2/ASD(f)/ASD(m)-3

JD/JG

ACCESSION NR: AP4044909

S/0226/64/000/004/0033/0036

AUTHOR: Alekseyeva, F. N. (Moscow); Matyushenko, R. S. (Moscow);
Rakovskiy, V. S. (Moscow); Silnyev, A. F. (Moscow)

TITLE: Effect of production conditions on the density and strength
of sintered refractory metals 8

SOURCE: Poroshkovaya metallurgiya, no. 4, 1964, 33-36 27

TOPIC TAGS: refractory metal, refractory metal production, niobium,
molybdenum, niobium production, molybdenum production, sintered niobium
property, sintered molybdenum property, sintered molybdenum
production, sintered niobium production.

ABSTRACT: An attempt has been made to establish optimal conditions
for compacting and sintering refractory metal powders.¹ Experiments
showed that an excessive compacting pressure has a negative effect
and that best results are obtained with a pressure of 4000—6000
dan/cm². The maximum density of compacts is attained by sintering
molybdenum in hydrogen at 2173K for 4—5 hrs and by sintering niobium
in a vacuum of 0.133 n/m³ (10⁻³ mm Hg) at the same temperature for

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ACCESSION NR: AP4044909

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3-4 hrs. Residual microporosity of molybdenum²⁷ compacts sintered in hydrogen amounts to 2.5%, while that of compacts sintered in a vacuum amounts to 6.5%. The hardness of niobium and molybdenum compacts increases with increasing density. The strength of both metals in the 293-1473K range drops continuously with increased test temperature from 280 and 205 $\text{n/m}^2 \cdot 10^6$ at 293K to 155 and 100 $\text{n/m}^2 \cdot 10^6$ at 1473K for molybdenum and niobium²⁷, respectively. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 14Apr63

ATD PRESS: 3111

ENCL: 00

SUB CODE: MM

NO REF SOV: 002

OTHER: 000

Card 2/2

4

L 65105-65 EWP(e)/EWT(m)/EWP(t)/EWP(k)/EWP(z)/EWP(b) IJP(e) JD
ACCESSION NR: AP5021976 UR/0286/65/000/014/0038/0038
669.167.24

AUTHOR: Dekhanov, N. M.; Boytsov, L. I.; Zel'din, V. S.; Klassen, V. I.; Kurenkov,
I. I.; Plaksin, I. N.; Runov, M. A.; Silayev, A. F.; Snezhko, P. F.

TITLE: A method for producing dispersed ferrosilicon powder, Class 18, No. 172853

35
B

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 38

TOPIC TAGS: powder metal production, silicon alloy, iron alloy

ABSTRACT: This Author's Certificate introduces a method for producing dispersed ferrosilicon powder with a particle size of no more than 100 microns by vaporizing the molten material using hot or cold air. The yield of fine particles is increased and spherical grains are produced by heating the melt in the 1550-1650°C range and passing it through a silicified sleeve with a valibrated opening which guarantees a constant flow of metal. The melt is then sprayed and the particles are separated according to size.

ASSOCIATION: none

SUBMITTED: 19Oct63

NO REF SOV: 000

Card 1/1 *MBP*

ENCL: 00

OTHER: 000

SUB CODE: MM

ACC NR: AR6035417

SOURCE CODE: UR/0137/66/000/009/G040/G040

AUTHOR: Silayev, A. F.

TITLE: Connection between the physical properties of metallic melts and the parameters of the process of their atomization by a high speed gas stream

SOURCE: Ref. zh. Metallurgiya, Abs. 9G288

REF SOURCE: Sb. Poverkhnostn. yavleniya v rasplavakh i vznikayushchikh iz nikh tverd. fazakh. Nal'chik, 1965, 590-594

TOPIC TAGS: molten metal, droplet atomization, powder metal production, surface active agent

ABSTRACT: This is a review of the present status of the problem of obtaining metallic powders by atomizing molten metals with the aid of gases. Using as an example the atomization of molten Fe-Si, the author shows the connection between the physical state of the melt (the values of the surface tension σ , the kinetic viscosity γ , and the density ρ of the melt) and the properties of the powders (their microinhomogeneity, shape, and dimension of the particles). The physical state of the melt depends in turn on the superheat temperature of the melt above the solidus line and the presence in the melt of surface-active substances. For Fe-Si melts, such substances are aluminum, carbon, boron, and bismuth. Aluminum in conjunction with bismuth and boron affects favorably the formation of spherical particles during the atomization process. To obtain dispersed powders, the atomization process must be carried out at minimal

Card 1/2

UDC: 621.762.2.001: 669.1'775

ACC. NR: AR6035417

values of σ , γ , and ρ , obtained by high superheats and small amounts of additives, and also by effecting the process at high parameters, namely a high degree of heating of the gas and high velocities of the gas stream. The stability of the atomization process depends to a considerable degree on the construction of the atomizing apparatus. V. Kvin [Translation of abstract]

SUB CODE: 11

Card 2/2

✓
SHCHEGOLEV, V.N., professor, doktor sel'skokhozyaystvennykh nauk,
redaktor; BERIN, N.G.; BEY-BIYENKO G.Ya.; BRYANTSEV, B.A.;
BRYANTSEVA, I.B.; VOLGIN, V.I.; DANILEVSKIY, M.S.; ZIMIN, L.S.
OSMOLOVSKIY, G.Ye., redaktor; HUBTSOV, I.A.; SHIVCHENKO, M.I.:
SHCHEGOLEV, V.N.; YATSENKO, I.P.; SILAYEV, A.G., redaktor;
GODOLAGINA, S.D., tekhnicheskiy redaktor.

[Entomologist's dictionary manual] Slovar'-spravochnik
entomologa. Moskva, Gos.izd-vo selkhoz.lit-ry, 1955. 451 p.
(Entomology--Dictionaries) (MLRA 8:10)

MIKHAYLOV, N.S.; SILAYEV, A.M.

Methods for analyzing the effectiveness of insemination
of cows. Veterinariia 42 no.12:74-75 D '65.

(ICRA 19:1)

ROZHDAYEV, V.I.; SILAYEV, A.M.; EVKIN, N.; PRIYMA, O.; TITOK, V.;
ROMANOVSKIY, A.B.; KHERUVIMOV, V.P.

Brief news. Veterinariia 42 no.11:121-126 N '65. (MIRA 19:1)

1. Sekretar' obshchestvennogo redaktsionnogo soveta zhurnala
"Veterinariya" (for Rozhdayev).

SILAYEV, A. N.

Leather

Making sheepskin leather from rejected skins., Leg. prom., no. 1, 1952.

Monthly List of Russian Accessions. Library of Congress, March 1952. UNCLASSIFIED.

SILAYEV A.S

MIKHIL'SON, N.M.; SHTEFEL', M.P.; SILAYEV, A.S.

Arrangement of the clinic for maxillo-facial surgery. Stomatologia
no. 4:24-26 J1-Ag '54. (MLRA 7:9)
(DENTISTRY, OPERATIVE,
in Russia)

SILAJEV, A.S.
MIHALSZOM, N.M.; STJEFELJ, M.P.; SZILAJEV, A.Sz.

The aims of the Central Stomatological Institute in maxillofacial
surgery. Fogorv. szemle 47 no.11:361-363 Nov 54.

(SURGERY, ORAL
in Hungary)

(DENTISTRY, OPERATIVE
in Hungary)

AKISHIN, P. A.; KELLE, V. I.; TATEVSKIY, V. M.; SILAYEV, A. V.

Biophysics

One mistaken theory of Professor Kobozev.
Vest. Mosk. un. 5, No. 8, 1950.

2. Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

L 35031-65 EWT(m)/EWP(b)/EWP(t) JD

18C 35
8/0286/65/000/005/0034/0034 34

ACCESSION NR: AP5008155

AUTHOR: Paton, B. Ye.; Dudko, D. P.; Medovar, B. I.; Latash, Yu. V.; Maksimovich, B. I.; Shevchenko, A. I.; Stupak, I. M.; Goncharenko, V. P.; Grigor'yer, A. P.; Petukhov, G. K.; Chudin, N. I.; Lut'nets, I. A.; Yartsev, M. A.; Keys, S. V.; Tulin, N. A.; Kapel'nitskiy, V. G.; Privalov, N. T.; Pis'mennov, V. S.; Sholodov, Yu. A.; Bystrov, S. M.; Bastrakov, N. P.; Donets, I. D.; Silayev, I. Ya.

TITLE: Method of electroslag casting of ingots. Class 18, No. 160743

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 34

TOPIC TAGS: ingot casting, ingot electroslag casting, electroslag melting, steel melting, alloy melting, metal melting

ABSTRACT: This Author Certificate introduces a method of electroslag casting of ingots in an open or protective atmosphere or in vacuum, in which slag is first melted in a mold with a nonconsumable or consumable electrode arc or plasma jet. To improve the metal quality and the ingot surface and to raise the yield, the molten metal or, if needed, the slag is poured into the mold through a hollow consumable or nonconsumable electrode (see Fig. 1 of the Enclosure). Orig. art. has: 1 figure. (ND)

Card 1/3

AID P - 4144

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 31/33

Author : Silayev, E. F.

Title : Kuvayeva, A. P., and D. N. Lipatov. Sbornik zadach po osnovam elektroprivoda (Collection of Problems on the Foundations of Electric Drives). Editor Prof. A. T. Golovan, 172 pp., Gosenergoizdat, 1955. (Book review).

Periodical : Elektrichestvo, 12, 80-81, D 1955

Abstract : This is a textbook composed by instructors of the Moscow Power Engineering Institute im. Molotov. It generalizes the experience of educational activity of the chair "Electric Equipment of Industrial Establishments". The author gives a detailed and favorable review of the book, while indicating some defects which should be corrected in future editions of the book.

Institution : None

Submitted : No date

AL'TMAN, S.Ya., kandidat tekhnicheskikh nauk, dotsent; SINITSYN, O.A., kandidat tekhnicheskikh nauk, dotsent; SILAYEV, E.F., inzhener.

M.M.Sekelov's book "Electric drives and power supply for industrial plants."
Reviewed by S.IA.Al'tman, O.A.Sinitsyn, E.F.Silaev. Elektrichestvo no.8:
95 Ag '56. (MLRA 9:10)

1.Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.
(Electric meters) (Electric power)

BORISOV, Yuriy Matveyevich; SOKOLOV, Mikhail Mikhaylovich; BASHARIN, A.V.,
doktor tekhn. nauk, retsenzent; PETROV, I.I., doktor tekhn. nauk,
retsenzent; SILAYEV, N.F., inzh., red.; OSIFOVA, L.A., red. izd-va;
ML'KIND, V.D., tekhn. red.

[Electric equipment for hoisting and conveying machinery] Elektro-
oborudovanie pod'emno-transportnykh mashin. Moskva, Gos. nauchno-
tekhn. izd-vo mashinostroit. lit-ry, 1958. 400 p. (MIRA 11:9)
(Hoisting machinery) (Conveying machinery)
(Electric machinery)

SILAYEV, E.F.

Investigating the performance of electric drives used in bucket excavators. Nauch.dokl.vys.shkolv; mash.i prib. no.4:65-72 (MIRA 12:5)
'58.

1. Stat'ya predstavlena kafedroy "Elektrotehnika i elektro-oborudovaniye" Moskovskogo vysshego tekhnicheskogo uchilishcha im. Baumana.
(Excavating machinery--Electric driving)

8 (5)

AUTHOR:

Silavey, E. F., Engineer

SOV/105-59-11-28/32

TITLE:

On the Extension of the Field of Application of Synchronous Electric Motors in the Industry

PERIODICAL:

Elektrichestvo, 1959, Nr 11, pp 91-92 (USSR)

ABSTRACT:

In the GNTK SSSR (GNTK USSR) a conference took place on June 9, 1959 under the chairmanship of Professor I. A. Syromyatnikov, Doctor of Technical Sciences, which was attended by representatives of the following institutions and factories: Soyuzglavenergo pri Gosplane SSSR (All-Union Main Power Administration of Gosplan USSR); Irkutskaya TETs Nr 1 (Irkutsk Thermal Power Plant Nr 1); NIIP (Scientific Research Institute of Electrical Industry); factory "Elektrosila"; Lys'venskiy turbogeneratornyy (Lys'va Factory for Turbogenerators); the planning institutes "Elektroproyekt" of the nitrogen industry; Tyazhpromelektroproyekt (State Design and Planning Institute for Heavy Electrical Industry); Gipromez (State Institute for the Design and Planning of Metallurgical Plants); Gosinspektsiya po promenergetike Soyuzglavenergo (State Inspection for Industrial Energy of the Soyuzglavenergo); VNIIE (All-Union Scientific Research Institute for Power Engineering);

Card 1/3

On the Extension of the Field of Application of
Synchronous Electric Motors in the Industry

SOV/105-59-11-28/32

Glavelektromontazh (Main Administration for Electric Installations); TsBTIE; Yerevanskiy filial NIIA (Yerevan Branch of the NIIA); GNTK RSFSR; Gosplan SSSR (Gosplan USSR) and others. The resolutions adopted by this Conference are summarized in 11 points: 1) the shortcomings with respect to output and nomenclatures in synchronous motors are dealt with. 2) The extension of the production plan is outlined. 3) The Gosplan SSSR and the GNTK SSSR are ordered to organize the selection of synchronous motors for general industrial purposes in 1959. 4) The reduction of the delivery costs is claimed. 5) The Gosplan SSSR is ordered to control the further development of synchronous motors with suited rated and starting properties together with the GNTK SSSR and the Komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (Committee of the Council of Ministers of the USSR for Automation and Machine Construction). 6) The state authorities are ordered to issue specifications for the planning organizations. 7) In GOST 183-55 additional hints shall be made concerning cos φ . 8) The reduction of the construction costs is discussed. 9) Methodical hints for the technical and

Card 2/3

On the Extension of the Field of Application of
Synchronous Electric Motors in the Industry

SOV/105-59-11-28/32

Glavelektromontazh (Main Administration for Electric Installations); TsBTIE; Yerevanskiy filial NIIA (Yerevan Branch of the NIIA); GNTK RSFSR; Gosplan SSSR (Gosplan USSR) and others. The resolutions adopted by this Conference are summarized in 11 points: 1) the shortcomings with respect to output and nomenclatures in synchronous motors are dealt with. 2) The extension of the production plan is outlined. 3) The Gosplan SSSR and the GNTK SSSR are ordered to organize the selection of synchronous motors for general industrial purposes in 1959. 4) The reduction of the delivery costs is claimed. 5) The Gosplan SSSR is ordered to control the further development of synchronous motors with suited rated and starting properties together with the GNTK SSSR and the Komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (Committee of the Council of Ministers of the USSR for Automation and Machine Construction). 6) The state authorities are ordered to issue specifications for the planning organizations. 7) In GOST 183-55 additional hints shall be made concerning cos φ . 8) The reduction of the construction costs is discussed. 9) Methodical hints for the technical and

Card 2/3

On the Extension of the Field of Application of
Synchronous Electric Motors in the Industry

SOV/105-59-11-28/32

economic calculation of these motors should be given to all
planning organizations. 10) The Gosplan SSSR and the
Moskovskiy oblastnoy sovnarkhoz (Moscow Oblast sovnarkhoz) are
ordered to induce the planning organizations and the
Serpukhovskiy kondensatornyy zavod (Serpukhovsk Condenser
Factory) to study the problem of the compensation of relative
load by condensers. 11) The TsBTIE is ordered to issue
prospectuses on the motor characteristics. ✓

Card 3/3

PETROV, I.I., prof., doktor tekhn.nauk, red.; SIROTIN, A.A., red.;
CHILIKIN, M.G., prof., doktor tekhn.nauk, red.; SUD, I.I.,
red.; SILAYEV, E.F., red.; VORONIN, K.P., tekhn.red.; LARIO-
NOV, G.Ye., tekhn.red.

[Electric driving and automatic control of industrial systems;
transactions of the All-Union Conference on the Automation of
Industrial Processes in Machinery Manufacture and on Automatic
Electric Driving in Industry] Elektroprivod i avtomatizatsia
promyshlennykh ustanovok; trudy Vsesoiuznogo ob"edinennogo so-
veshchaniia po avtomatizatsii proizvodstvennykh protsessov v
mashinostroenii i avtomatizirovannomu elektroprivodu v pro-
myshlennosti. Pod obshchei red. I.I.Petrova, A.A.Sirotina i
M.G.Chilikina. Moskva, Gos.energ.izd-vo, 1960. 470 p.
(MIRA 13:7)

1. Vsesoyuznoye ob"yedinennoye soveshchaniye po avtomatizatsii
proizvodstvennykh protsessov v mashinostroyenii i avtomatizirovan-
nomu elektroprivodu v promyshlennosti. 3d, Moscow, 1959.
(Electric driving) (Automatic control)

OLEFIR, F.F., kand.tekhn.nauk; ROGANOV, V.F., inzh.; SILAYEV, E.F.,
inzh.

Electric drive of a winder with an astatic band tension re-
gulator. Elektrichestvo no.5:23-30 My '61. (MIRA 14:9)
(Rolling mill.) (Electric driving)

REYNGOL'D, Yu.R. (Moskva); SILAYEV, E.F. (Moskva)

Transfer function of an amplidyne-generator system with
capacitive and flexible negative feedback dependent on the
voltage and exerted force. Elektrichestvo no.5:60-63 My '62.
(MIRA 15:5)

(Rotating amplifiers)

ACCESSION NR: AP4029144

S/0105/64/000/004/0046/0093

AUTHOR: Drushinin, N. N. (Doctor of technical sciences, Moscow);
Silayev, E. F. (Engineer, Moscow)

TITLE: Transfer functions and matrix structures of a continuous rolling mill

SOURCE: Elektrichestvo, no. 4, 1964, 46-53

TOPIC TAGS: automatic control, rolling mill, rolling mill automatic control,
continuous rolling mill control, transfer function, rolling mill transfer function

ABSTRACT: Thanks to a narrow-limit variation of the operating parameters of a continuous multistand cold-rolling mill, the relations between these parameters are almost linear, which greatly simplifies the mathematical treatment of the problem. The following equations describing the interconnection between the multimotor electrical drive and the process, allowing for elasticity of the mechanical members, are set up: output strip thickness equation, static motor

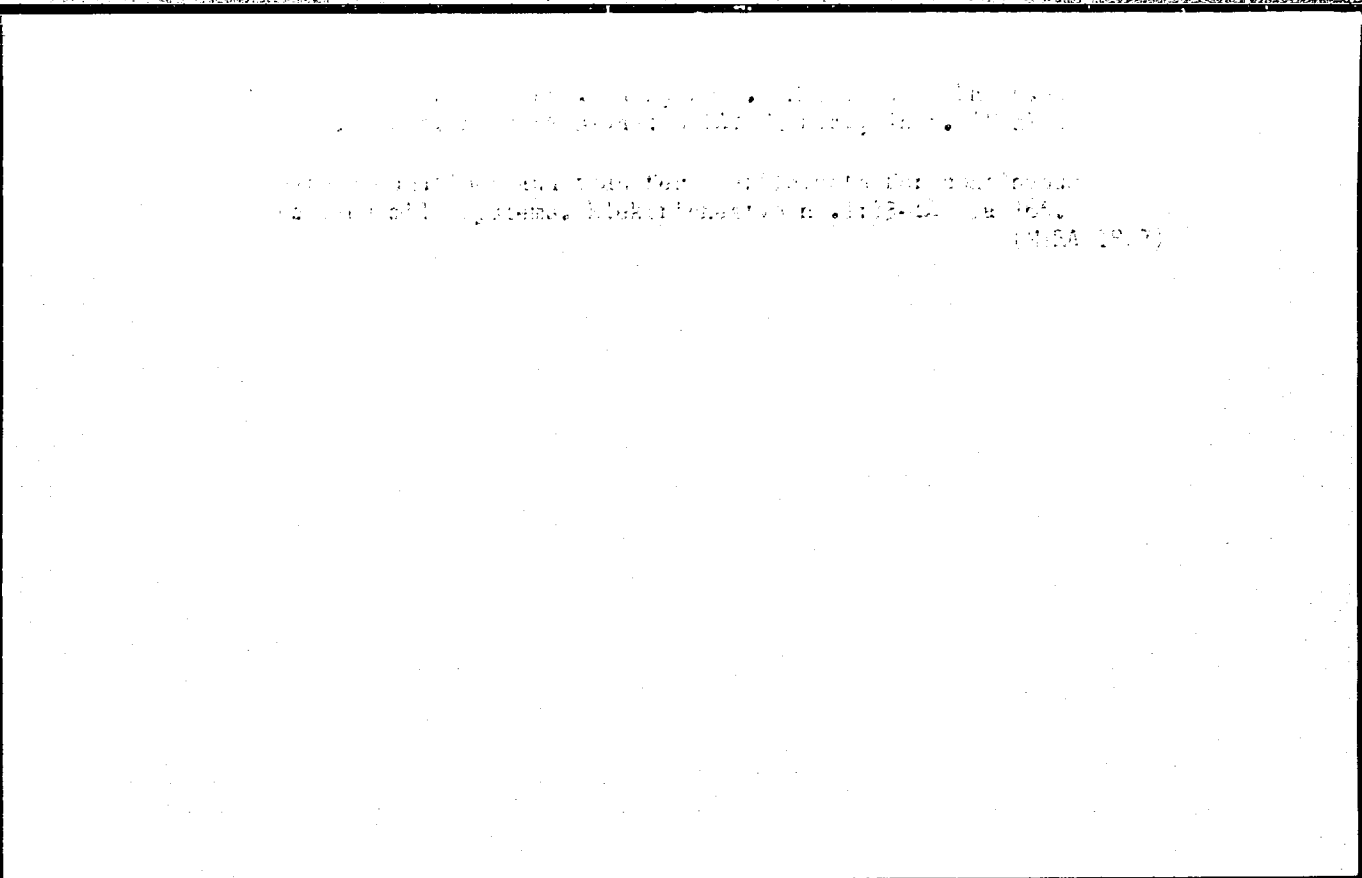
C. Card 1/2

SILAYEV, E.F., inzh.

Investigating the dynamics of the control system of a continuous
cold rolling mill. Izv. vys. ucheb. zav.; mashinostr. no.1:186-
204 '65. (MIRA 13:5)

GUTKIN, Boris Mironovich; SILAYEV, E.F., red.

[Direct current drives with ignitrons] Ionnyi privod
postoiannogo toka. Moskva, Energiia, 1965. 455 p.
(MIRA 18:7)



L 27948-66

ACC NR: AP6017708

SOURCE CODE: UR/0105/66/000/001/0085/0086

AUTHOR: Bertinov, A. I.; Voronetskiy, B. B.; Gendel'man, B. R.; Girshberg, V. V.;
Gromov, V. I.; Druzhinin, N. N.; Kunitskiy, N. P.; Naumenko, I. Ye.; Petrov, I. I.;
Vetrov, G. N.; Rusakov, V. G.; Si'ayev, E. F.; Slezhanovskiy, O. V.;
Syromyatnikov, I. A.; Tulin, V. S.; Filin, N. M.; Tselikov, A. I.; Chilikin, M. G.;
Yun'kov, M. G.

ORG: none

TITLE: Engineer N. A. Tishchenko (on his 60th birthday)

SOURCE: Elektrichestvo, no. 1, 1966, 85-86

TOPIC TAGS: electric engineering personnel, metallurgic furnace, electric equipment

ABSTRACT: Nikolay Afanas'yevich Tishchenko completed the Khar'kov Electrotechnical Institute in 1930, after working as an electrician in a Metallurgical plant from 1923-1926. He was active in the development of domestically produced electrical equipment for rolling mills and metallurgical furnace works. He was active during WWII in restoring electrical equipment damaged by the Germans. After the war, he was active in developing electrical drive equipment for both domestic and foreign metallurgical plants. He has been active in scientific work, publishing over 45 works in such varied fields as electric drives, equipment reliability and productivity of labor. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09, 13 / SUBM DATE: none

Card 1/1 *BLG*

UDC: 621.34

1. OKI. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

SNITKOVSKIY, M.M., inzh.; SILAYEV, I.I., inzh.

Changes in the microhardness of phosphorus compound inclusions
in gray cast iron at from 20 to 300⁰ temperatures. Metalloved.
1 term. obr. met. no. 5:42-45 My '60. (MIRA 13:12)

1. Odesskiy institut inzhenerov morskogo flota.
(Cast iron--Metallography) (Metals at high temperatures)

SNITKOVSKIY, M.M., assistant; SILAYEV, I.I., inzh.

Mechanism of the wear of gray phosphorous cast iron caused by friction. Izv.vys.ucheb.zav.; mashinostr. no.10:37-36 '61.
(MIFA 14:12)

1. Odesskiy institut inzhenerov morskogo flota.
(Cast Iron--Testing)

IVANOV, S.A., dotsent; SILAYEV, I.I., inzh.; SNITKOVSKIY, M.M., inzh.

Causes of seam failure in expanding welded boiler tubes. Stal'
22 no.1:72-73 Ja '62. (MIRA 14:12)

1. Odesskiy institut inzhenerov morskogo flota.
(Boilers, Water tube--Welding)

9.1300

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S/112/60/000/008/012/012

Translation from: Referativnyy zhurnal. Elektrotehnika, 1960, No. 8, p. 412,
6.7172

AUTHOR: Silayev, M.A.

TITLE: The Pondermotive Effect of Elliptically Polarized Electromagnetic Waves
on the "Plane" Phase-Shifting Element in Circular Waveguides 21

PERIODICAL: Uch. zap. Khar'kovsk. un-t, 1959, Vol. 102, Tr. Radiofiz. fak. Vol.
3, pp. 25-33

TEXT: The author investigates the transformation of polarization when
transmitting waves with arbitrary orientation of the polarization ellipse by a
"plane" phase-shifting element. The mean power for one period is determined,
which is transmitted by an elliptically polarized wave of the H_{11} type. Based
on the conception of quantum mechanics, the angular electromagnetic moment of the
 H_{11} wave was found. The pondermotive moment of elliptically polarized H_{11} waves
was determined. 4

A.V.M.

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

Card 1/1

SILAYEV, N.I., kandidat ekonomicheskikh nauk.

Effect of traffic volume on the operational expenditure of railroads.
Trudy KHIIT no.24:19-44 '54.
(Railroads--Traffic) (MIRA 8:1)

TUCHKEVICH, T.M., kandidat ekonomicheskikh nauk (Khar'kov); ADAMENKO, N.V.,
kandidat ekonomicheskikh nauk, inzhener (Khar'kov); KRIMOUS, G.Kh.,
inzhener (Khar'kov); LEMBERSKIY, A.Ya., (Khar'kov); NAUMOV, G.K.,
kandidat ekonomicheskikh nauk (Khar'kov); SILAYEV, N.I., kandidat
ekonomicheskikh nauk, dotsent (Khar'kov); USHAKOV, P.S., (Khar'kov);
MEL'SHTEYN-UDYANSKIY, P.G.; kandidat ekonomicheskikh nauk (Khar'kov).

Qualities and defects of a manual on transportation economics ("Tech-
nical manual for railroad engineers." Volume 11, "Planning and
accounting in railroad transportation." Reviewed by T.M. Tuchkevich
and others.) Zhel.dor. transp. 38 no.8:91-93 Ag '56.

(Railroads--Management)

(MIRA 9:10)

NAUMOV, G.K., kandidat ekonomicheskikh nauk (Khar'kov); SILAYEV, N.I.,
kandidat ekonomicheskikh nauk (Khar'kov); TUCHKEVICH, T.M.,
kandidat ekonomicheskikh nauk (Khar'kov); YELISEYEVA, T.V.,
inzhener (Khar'kov); KRIMNUS, G.Kh., inzhener (Khar'kov).

Popular library on the economics of railroad transportation.
Zhel. dor. transp. 39 no.5:93-96 My '57. (MIRA 10:6)
(Bibliography--Railroad engineering)

NAUMOV, G.K., kand.ekon.nauk; ~~SILANOV, N.I.~~, kand.ekon.nauk; TUCHKOVICH,
T.M., kand.ekon.nauk; KRIMNUS, G.Kh., kand.ekon.nauk; YELISHEVA,
T.V., inzh. (Khar'kov)

Necessary textbooks for the teaching of economics to personnel.
Zhel. dor. transp. 40 no.6:91-94 Je '58. (MIRA 11:6)
(Railroads--Finance)

KRIMNUS, G.Kh., kand. ekon. nauk; NAUMOV, G.K., kand. ekon. nauk; SILAYEV, N.I.,
kand. ekon. nauk (Khar'kov)

"Rolling stock economics" by V.I. Dmitriev. Reviewed by G.Kh.
Krimnus, G.K. Naumov, N.I. Silaev. Zhel. dor. transp. 41 no.10:
94-96 0 '59. (MIRA 13:2)

(Railroads--Rolling stock)
(Dmitriev, V.I.)

MINKIN, I.B. [deceased]; SILAYEV, N.I.; KRIMFUS, G.Kh.; NAUMOV, G.K.;
GENESIN, A.M.; GRINENKO, Ya.F.; POPOV, A.V., inzh., red.; KHITROV,
P.A., tekhn.red.

[Costs of transportation on industrial railroads] Voprosy
sebestoimosti perevozk na promyshlennom zheleznodorozhnom
transporte. Moskva, Gos.transp.zhel-dor.izd-vo, 1960. 175 p.
(Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut
zheleznodorozhnogo transporta. Trudy, no.185). (MIRA 13:11)
(Railroads, Industrial--Cost of operation)

ORLOV, V.N., Prof; SILAYEV, N.I., kand.ekon.nauk; KRIMNUS, G.Kh., kand.ekon.nauk; NAUMOV, G.K., kand.ekon.nauk; TUCHKOVICH, T.M., kand.ekon.nauk; KARASIK, V.Ya., kand.tekhn.nauk; GORDON, Ye.G., starshiy prepodavatel' (Khar'kov).

"Transportation economics" by T.S.Khachaturov. Reviewed by V.N.Orlov and others. Zhel.dor.transp. 42 no.10:91-95 O '60. (MIRA 13:10)
(Railroads--Freight) (Transportation)
(Khachaturov, T.S.)

NAUMOV, Georgiy Karpovich; SILAYEV, Nikolay Ionovich; CHERNUKHA,
Nikolay Timofeyevich; SHCHERBAKOV, P.D., retsenzent; PESKOVA,
L.N., red.; USENKO, L.A., tekhn. red.

[Business accounting in a railroad section] Khoziaistvennyi
raschet na otdelenii zheleznoi dorogi. Moskva, Transzheldor-
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