L 12803-66 EWT(1)/EWT(m)/FCC/T DS/WW/GW

ACC NR: AP5028902 SOURCE CODE: UR/0138/65/000/011/0034/0035

AUTHOR: Karp, G. A.; Mayzelis, B. A.; Rokhman, A. N.; Trofimovich, D. P.; Freyman, A. V.; Shepelev, M. I.

ORG: Scientific Research Institute of Rubber and Latex Products (Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh izdeliy)

TITLE: Study of the effect of stresses arising during the swelling of the gel on the quality of meteorological radiosonde envelopes

12,44,55

SOURCE: Kauchuk i rezina, no. 11, 1965, 34-35

TOPIC TAGS: radiosonde, gel, rubber, mechanical stress

ABSTRACT: In the manufacture of radiosonde envelopes, an important parameter is the magnitude of the stress arising in the course of swelling of the gel. The effect of this parameter on the tensile properties of type-150 envelopes was studied. The stress was varied by changing the duration of syneresis from 10 min to 7 hr, which caused changes in stress ranging from 5 to 11 kg/cm^2. In order to characterize the tensile properties of envelopes of the same size but prepared in different ways, use was made of the so-called quality factor (ratio of ultimate elongation of envelope to ultimate elongation of sample). To determine this factor on an instrument for two-dimensional deformation, the ultimate elongations of samples cut out of envelopes with various stresses in the gel were measured. The ultimate elongations of these samples were all found to be equal on swelling and amounted to

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UDC: 678.061:678.017:620.172.21

L 12803-66

ACC NR: AP5028902

λ = 8.8. On the basis of tests of samples and envelopes, the dependence of the quality factor of radiosonde envelopes was plotted versus the stress in the gel during swelling (see Fig. 1).

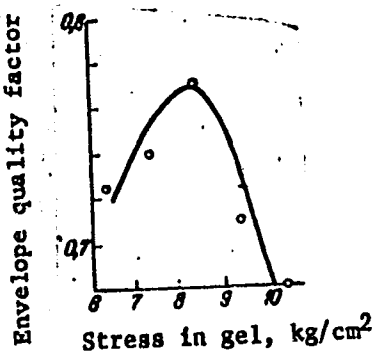

Fig. 1 Quality factor of type-150 envelopes vs. stress in gel during swelling

The following parameters are recommended for adoption in the manufacture of type-150 envelopes: gel swelling, up to λ = 4.2; stress in gel during swelling, 8 ± 0.5 kg/cm^2.

SUB CODE: 11 / SUBM DATE: none / ORIG REF: 007

jw

Card 2/2

L 08728-67 EWT(1)/EWT(m)/EWP(j) IJP(c) RM/GW
ACC NR: AP7001651 SOURCE CODE: UR/0138/65/000/011/0034/0035

AUTHOR: Karp, G. A.; Mayzelis, B. A.; Rokhman, A. N.; Trofimovich, D. P.; Froyman, A. V.; Shopolov, N. I. 26

ORG: Scientific Research Institute of Rubber and Latex Products (Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh izdeliy)

TITLE: Study of the effect of stresses arising during the swelling of gel on the quality of meteorological radiosonde envelopes 15

SOURCE: Kauchuk i rezina, no. 11, 1965, 34-35

TOPIC TAGS: radiosonde, meteorologic balloon

ABSTRACT: In the manufacture of radiosonde envelopes, an important parameter is the magnitude of the stress arising in the course of swelling of the gel. The effect of this parameter on the tensile properties of type-150 envelopes was studied. The stress was varied by changing the duration of syneresis from 10 min to 7 hr, which caused changes in stress ranging from 5 to 11 kg/cm^2. In order to characterize the tensile properties of envelopes of the same size but prepared in different ways, use was made of the so-called quality factor (ratio of ultimate elongation of envelope to ultimate elongation of sample). To determine this factor on an instrument for two-dimensional deformation, the ultimate elongations of samples

Card 1/2 UDC: 678.061:678.017:620.172.21

0924 1411

L 08728-67
ACC NR: AP7001651 0

cut out of envelopes with various stresses in the gel were measured. The ultimate elongations of these samples were all found to be equal on swelling and amounted to $\lambda = 8.8$. On the basis of tests of samples and envelopes, the dependence of the quality factor of radiosonde envelopes was plotted versus the stress in the gel during swelling. The following parameters are recommended for adoption in the manufacture of type-150 envelopes: gel swelling, up to $\lambda = 4.2$; stress in gel during swelling, 8 ± 0.5 kg/cm^2. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 08 / SUBM DATE: none / ORIG REF: 007

Card 2/2 not

GUREVICH,G.; VINNIKOV,M.; YUDITSKIY,M.; KARP,I.

Clubs train public-spirited instructors. Voen.znan.31 no.4:9 Ap'55. (MLRA 8:10)

(Military education)

1. KARP, I., Eng.; T[illegible]Y, I., Eng.

2. USSR (600)

4. Ships - Maintenance and Repair

7. Boring out brackets for propeller shafts with a short [illegible]ring bar. Mor. flot. 13, No. 2, 1953.

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

KOVALENKO, Yekaterina Yeliferovna; UL'YANOVA, Antonina Dmitriyevna; KARP, I.M., kand. tekhn.nauk, red.; LEVBERG, Z.M. [Levberh, Z.M.], red. izd-va; RAKHLINA, N.P., tekhn. red.

[Natural fuel gases of the Ukrainina S.S.R. and their uses; a bibliographic index for 1917-1961] Pryrodni horiuchi gazy Ukrains'koi RSR ta vykorystannia (1917-1961 rr); bibliografichnyi pokazchuk. Za red. I.M.Karpa. Kyiv, Vyd-vo AN Ukr.RSR, 1963. 287 p. (MIRA 16:9)

(Bibliography--Ukraine--Gas, Natural)
(Ukraine--Gas, Natural--Bibliography)

KARP I. N.

18(5) PHASE I BOOK EXPLOITATION SOV/1907

Akademiya nauk Ukrainskoy SSR. Kiyev Otdeleniye tekhnicheskikh nauk

Voprosy proizvodstva stali vyp.6 (Problems of Steel Production, Nr 6) Kiyev, Izd-vo AN Ukrainskoy SSR, 1958. 137 p. Errata slip inserted. 2,000 copies printed.

Resp. Ed.: N.N. Dobrokhotov, Academician, Ukr. SSR Academy of Sciences; Ed. of Publishing House: N.M. Labinova; Tech. Ed.: V.I. Yurchishin.

PURPOSE: This book is intended for engineers and scientific personnel in the field of steel production.

COVERAGE: This is a collection of articles dealing with various aspects of the production of steel, including the designing of open-

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hearth furnaces, thermal processes in the furnaces, thermodynamics of steel-making processes, technology of producing high-grade steel, and changes in the size and shape of ingots. Other topics discussed are the properties of chrome-manganese stainless steels, improvement of ball-bearing steel, ingot defects, ingot quality as determined by temperature of teeming and shape of mold, and certain aspects of steel rolling. Some of the articles are accompanied by references, both Soviet and non-Soviet.

TABLE OF CONTENTS:

DOBROKHOTOV, N.N.; KARP, I.N.

Transfer of open-hearth furnaces to heating with natural gas or coke-oven by-product gas. Vop.proizv.stali no.5:3-14 '58. (MIRA 12:5)

(Open-hearth furnaces) (Fuel--Testing)

KARP, I.N
p.3

SOV/122-58-7-30/31

AUTHOR: Ginzburg, Z.L., Engineer

TITLE: Production Engineering and Technical Session on the Exchange of Experience in the Utilisation of Natural Gas in Industrial Furnaces of Engineering Plants (Proizvodstvenno-tekhnicheskaya sessiya po obmenu opytom ispol'zovaniya prirodnogo gaza v promyshlennykh pechakh mashinostroitel'nykh zavodov)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, Nr 7, pp 86-87 (USSR)

ABSTRACT: The session was called by the Khar'kov sovnarkhoz (Khar'kov Economic Council), the metal-working section of the Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti (Scientific and Technical Society for the Engineering Industry) and the Institut ispol'zovaniya gaza v kommunal'nom khozyaystve i promyshlennosti AN USSR (Institute for Gas Utilisation in Communal Services and Industry at the Ac.Sc. Ukrainian SSR). V.K. Tarasenko Engineer of the Zavod transportnogo mashinostroyeniya (Transport Machinery Works) imeni Malysheva reported on experience in the operation of forge-heating furnaces and open-hearth furnaces with natural gas. The use of flameless injection burners is permissible in forging shops and rough-heat treatment shops when heating forging blanks

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of medium cross-section not subject to rigid control of mechanical properties. The use of flame-type two-channel burners is acceptable in all shops, including heat-treatment furnaces for finish treatment and furnaces for the heating of components and blanks of arbitrary cross-section subject to rigid control of mechanical properties. Such burners ensure a greater stability of the furnace. Gas burners cannot be placed anywhere in the working space of the furnace. Their optimum position is 400-450 mm above the sole of the furnace or 200-250 mm above the surface of the charge. In heat-treatment furnaces, especially with multi-layer charging, rapid heating is achieved by placing the burners at the furnace sole level. In co-operation with the Gas Utilisation Institute of the Ukrainian Ac.Sc., the lecturer's works developed a successful method for the heating of large ingots. Injector burners did not ensure the required uniformity and rate of ingot heating. 22 hours were needed for an ingot of 13 tons (compared with 10 hours with oil). The residual oil atomisers, type RDB, with

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double atomisation, were used with changed nozzles. A torch type gas combustion was achieved which heated the ingots in 10 hours. The fuel cost per ton of output is reduced compared with oil. A typical value is 55 roubles compared with 80 in forge-heating furnaces. Forging and heat treatment shops have achieved automatic temperature control with the help of an electronic-hydraulic installation, designated RTEG-1. I.N. Kamp, Engineer, of the Institute of Gas Utilisation, reported on work at the imeni Maysheva Works to improve the combustion of natural gas in a 40-ton open-hearth furnace. The two-channel burner was replaced by a single-channel burner and the shape of the working space of the furnace was changed resulting in a significant improvement. The practice of working with furnaces fired by natural gas installed in the Khar'kovskiy traktornyy zavod (Khar'kov Tractor Works) was discussed by I.R. Bykov, Engineer. 9 heat-treatment furnaces and forge heating furnaces and 32 drying furnaces have been converted to a natural gas. Two-channel low-pressure burners of the Giprosel'mash design operating on a gas

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pressure of 250 mm water column and an air pressure of 500 mm water column were used. It was necessary to increase the gas pressure to 500-700 mm water column. The furnaces were modified from under-floor to side heating. Nemirovskiy, A.Ya., Engineer, of the Motorostroitel'nyy zavod (Engine Works) 'Serp i Molot', reported on the conversion to natural gas of forge-heating furnaces and boilers. The former are equipped with injector burners of 5 sizes ranging from 6 to 18 m^3/h capacity. In the drop-hammer section, two-channel burners of 16-60 m^3/h capacity are used. The furnaces are equipped with screens to induce air circulation. It has been shown by gas analysis that, in using injector burners, the air excess coefficient is lower than in using two-channel burners. The coefficient amounts to 1.05-1.1. Increasing the loading of the hearth by reducing its surface area made it possible to reduce the specific fuel consumption and increase the furnace output. The drying kiln, the furnace for heating

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and firing of blocks and other units in the foundry have been converted to natural gas. Single-conduit, three-nozzle burners of 30-50 m^3/h capacity are used. Single-conduit multi-nozzle burners have given good service in boilers. Kopytov, V.F., Corresponding Member of the Ac.Sc. Ukrainian SSR, lectured on new heating methods in forging shops. Several variants exist for using natural gas in non-oxidising metal-heating furnaces. The construction of such furnaces is associated with the production of fire-bricks and fire-resistant materials for high-temperature recuperators and regenerators. At present, the Gas Utilisation Institute is working on the solution of a reliable non-oxidising heating method for forging and stamping. A.Ye. Yerimov, Engineer, of the Institute of Gas Utilisation, reported on the conversion of industrial furnaces from producer to natural gas. The existing gas-burning equipment can be used by simply reducing the cross-sections for gas flow. Kovalenko, V.V. of the IIG AN USSR (Institute of Gas Utilisation) lectured on drying kilns with infra-red gas heating when working with

natural gas. The heating conditions are controlled by the gas flow or by connecting rows of radiating panels. A study carried out to determine conditions of drying for UE-11 and UE-21 enamels or of UVL-1 and ML-21 lacquers on the bodies of sewing machines has established that good drying takes place over the whole surface. With a temperature of 400-450 °C at the radiating surface, satisfactory drying is accomplished in 4-6 minutes without discoloration. The use of the mixture of the combustion products of natural gas and air as a heat carrier has made it possible to simplify and cheapen significantly the design of the drying plant and to increase its efficiency. The fuel consumption has been reduced by a factor of 2.2. The duration of drying has remained the same as in drying with air heated to the same temperature. Vol'dimov, L.T., Engineer, of the Khar'kovskiy velozavod (Khar'kov Bicycle Works) delivered a paper on the possibilities of automation when using natural gas. Gas carburising in natural gas has been adopted in the Ts-60 furnace. The gas pressure is 150-250 mm water column. The duration of carburising to a

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depth of 1 mm is 4.5 hours. A tunnel furnace made of fireclay rings has been designed and built at the works. The furnace is heated with injector burners of medium pressure, and uses natural gas as a carburiser. In co-operation with the Gas Utilisation Institute, the design and construction of a high-speed heating furnace has been accomplished for the end faces of 32 mm dia rods, feeding a rod each 13-15 sec. An original design of a conveyor for transporting the rods from the furnace to the forging machine is being completed. The design, pursued by the lecturer, of a turbine burner of 30-40 m^3/h capacity uses the energy of high-pressure gas to drive a fan which forces air for combustion from the atmosphere and ensures a torch-type gas-combustion process. Dolginova , M.Ye., Engineer, of the Bakinskiy sudoremontnyy zavod (Baku Ship Repair Yard) imeni Parizhskoy Kommuny delivered a paper on the use of natural gas for the smelting of cast iron. The method developed and tested in practice, which dispenses with coke, consists of constructing alongside an ordinary cupola furnace a small reflecting furnace operating

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with natural gas. The furnace has three burners supplied by one air manifold and one gas manifold which ensure the simultaneous control of all burners. The practical utilisation of gas-fired cast iron melting furnaces has shown that cast iron with a carbon content below 3% can be produced. The high temperatures achieved make it possible to introduce up to 15-20% of steel scrap into the charge and also to accomplish modification of the cast iron. It is stated that cast iron melted with gas has a low sulphur content and is distinguished by higher mechanical properties. Zamalin, P.S., Engineer, of the Khar'kovskiy elektromekhanicheskiy zavod (Khar'kov Electro-mechanical Works) reported on experience with the burning of natural gas in industrial furnaces. Ter-Minok'yan, Engineer, of the Rostsel'mash spoke on the use of gas drying and the conversion of electric furnaces to natural gas.

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KARP, I. N. Cand Tech Sci -- (diss) "Study and perfection of the combustion of fuel in Martin furnaces." Kiev, 1959. 13 pp (Min of Higher Education UkSSR. Kiev Order of Lenin Polytechnic Inst), 100 copies (KL, 43-59, 124)

KARP, Igor' Nikolayevich; RAYTBURD, L., red.; GUSAROV, K., tekhn.red.

[Firing of open-hearth furnaces with natural gas] Otoplenie martenovskikh pechei prirodnym gazom. Kiev, Gos.izd-vo tekhn. lit-ry USSR, 1959. 86 p. (MIRA 13:10)
(Open-hearth furnaces--Equipment and supplies)

KARP, I.N.; GREBEN', K.A.

Investigating gas and fuel-oil jet burners in open-hearth furnaces. Vop.proizv.stali no.7:11-26 '60. (MIRA 13:8)
(Open-hearth furnaces--Combustion)

KONYUKH, V.Ya.; KARP, I.N.

Burners for the combustion of cold high-calorific gas in open-hearth furnaces. Gaz. prom. 7 no.11:20-25 N '62.
(MIRA 17:9)

KARP, Igor' Nikolayevich; KONYUKH, Vasiliy Yakovlevich; BORNATSKIY, I.I., kand. tekhn.nauk, retsenzent; CHUMACHENKO, T.I., red.izd-va; KRIVORUCHKO, P.F., tekhn. red.

[Firing open-hearth furnaces with high-calorie gas] Otoplenie martenovskikh pechei vysokokaloriinym gazom. Kiev, Gostekhizdat USSR, 1963. 178 p. (MIRA 17:2)

P/039/60/000/010/002/004
A224/A026

AUTHORS: Malkiewicz, T., Professor, Master of Engineering; Karp, J.; Mazur, A., Masters of Engineering

TITLE: The Obtainment of Standards for Magnetic Quantitative Determination of Martensite (α-Phase) in 18 - 8 Type Steel

PERIODICAL: Hutnik, 1960, No. 10, pp. 372 - 376

TEXT: The purpose of the paper is to obtain a martensite standard with a 100% α-phase to be used for magnetic determination of the amount of austenite retained in 18 - 8 steels. The authors review the existing methods, as described in various papers (Refs. 1 through 11), and conclude that the problem of obtaining a proper standard of 18 - 8 steel for magnetic tests has not been definitely solved. To obtain this standard, experiments were conducted with specimens made of four 18 - 8 types steel having chemical composition as listed in Table 1. Specimens, made of a supersaturated wire rod, 7 mm in diameter, were stretched in liquid nitrogen and tested by X-ray diffraction. The results indicated retained austenite in the specimens. Then the wire rod was drawn on a drawbench into wires of different diameter, at ambient temperature and a drawing speed of 16 m/min. The quantitative

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The Obtainment of Standards for Magnetic Quantitative Determination of Martensite (α-Phase) in 18 - 8 Type Steel

determination of the ferromagnetic phase was made with a magnetometer designed by the Instytut Metalurgii Żelaza (Institute of Iron Metallurgy) in Gliwice. Moreover the specimens were tested by X-ray diffraction. The curves on these figures indicate the changes of the martensite content in the specimens relative to the deformation. This dependence was calculated by the formula $\varepsilon = \ln \frac{A_o}{A}$ where: A - initial cross-section of the specimen, A_o - cross-section of the specimen after deformation. Based on these experiments the authors conclude that a standard with a 100% ferromagnetic phase can be directly obtained for 18 - 8 type steel, by applying a sufficiently high deformation at proper temperature. Thereby the error should not exceed 3%. This was proved in this work for steels containing 7.27 - 8.93% Ni and about 18% Cr. For steels with a higher nickel content, either lower deformation temperatures or a higher degree of cold work, or both factors, should be applied. The cold working has a considerably higher influence upon the degree of martensitic transformation than the lowering of temperature. There are 9 figures, 1 table, and 11 references: 4 English, 2 Soviet, 2 French, 2 Polish, and 1 German.

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A224/A026

The Obtainment of Standards for Magnetic Quantitative Determination of Martensite (α -Phase) in 18 - 8 Type Steel

ASSOCIATION: AGH - Kraków, Katedra metalografii i obróbki cieplnej (Academy of Mining and Metallurgy - Cracow, Chair of Metallography and Heat Treatment)

Table 1:

Designation	C	Mn	Si	P	S	Cr	Ni	Ti
S1	0,05	0,61	0,78	0,013	0,021	17,68	7,27	0,82
S2	0,09	0,47	0,56	0,012	0,015	18,47	8,02	0,58
B1	0,10	0,28	0,70	0,014	0,019	18,10	8,38	0,50
B2	0,13	0,23	0,52	0,006	0,018	18,18	8,93	0,66

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KARP, Jan, dr inz.; WOZNIACKI, Antoni, doc. dr

Microradiographic method of testing light metal alloys.
Rudy i metale 6 no.9:399-407 S '61.

KARP, Jan; WOŹNIACKI, Antoni

Evaluation of the usefulness of Post's analytic method of determining the ideal pole figures for metal sheets. Archiw hutn 8 no.1:37-52 '63.

KARP, Jan; CYUNCZYK, Aleksander

Determination of the orientation of Bi and Sb monocrystals by the Greninger-Laue method. Archiw hutn 8 no. 4: 347-355 '63.

KARP, M. L.

"Continued inbreeding in maize" (p. 181) by Karp, M. L.

SO: Advances in Modern Biology (Uspekhi Sovreminnoi Biologie) Vol. XII, No. 1, 1940

KARP, N. A.

Cand Tech Sci - (diss) "Study of the technological process of cutting stiff-stalked agricultural crops." Stalingrad, 1961. 15 pp; (Ministry of Agriculture RSFSR, Stalingrad Agricultural Inst); 200 copies; price not given; before title designation of author: N. A. Karp (Levikov); (KL, 6-61 sup, 218)

FEDOROVICH, V.G., inzh.; KARP, S.F., inzh.

Ore and limestone briquettes in side-blowing highly phosphorous pig iron in converters with use of oxygen. Izv.vys.ucheb. zav.; chern.met. 2 no.7:35-39 Jl '59. (MIRA 13:2)

1. Institut chernoy metallurgii AN USSR. Rekomendovano kafedroy metallurgii chernykh metallov Dneprodzerzhinskogo vechernego metallurgicheskogo instituta.
(Bessemer process)
(Oxygen--Industrial applications)

S/148/60/000/007/002/015
A161/A029

AUTHOR: Karp, S.F.

TITLE: The Effect of Aluminum Addition Method on the Oxide Inclusions Content in Killed Steel

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, 1960, Nr 7, pp 49-53

TEXT: Experiments were carried out with killed "M16C" (M16S) low-carbon open-hearth steel and "ст.3" (St.3). M16S steel was melted in basic 200-ton furnaces with magnesite-chromite vault in the scrap-ore process and aluminum was added into the ladle after the obligatory deoxidation in the furnace. Addition of 45%-ferrosilicon (3-3.5 kg/ton), aluminum (1 kg/ton) and ferrotitanium (0.7-0.8 kg/ton, with 28% Ti content) was tried. Rectangular 1,550 and 1,840 mm high ingot molds were filled by bottom pouring. Deoxidation of M16S steel by ferrotitanium being obligatory, excessive oxidation of titanium was prevented by adding part of aluminum before ferrotitanium into ladle and the rest in even portions into the pouring gate during pouring. St.3 steel was poured without ferrotitanium

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The Effect of Aluminum Addition Method on the Oxide Inclusions Content in Killed Steel

addition, but with addition of aluminum into the ladle and ingot molds. No full deoxidation was achieved, and the residual oxygen in steel oxidized increased aluminum additions (Table 2). A considerable burning out of aluminum in the ladle was supposed to be the cause and checked by calculation. Equation (1) corresponding to experimental and practical data /Ref 4/ was used for description of the deoxidation process:

$$\lg \frac{[\%Al]^2 [\%O]^3}{\alpha_{Al_2O_3}} = -\frac{57460}{T} + 20.48 \quad (1)$$

where $[\%Al]$ is aluminum content in steel, in %; $[\%O]$ - content of oxygen dissolved in liquid steel, in %; $\alpha_{Al_2O_3}$ - activity of silica in deoxidation products present in liquid steel in equilibrium state, in unit fractions; T - the absolute metal temperature, in ^{o}K. The chemical and mineralogical compositions of stable non-metallic inclusions determined in steel after rolling are given (Table 3). The following conclusions were drawn: 1) Killed M16S steel deoxidized by aluminum in the ladle in a quantity of up to 1 kg/ton under

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conventional foundry conditions contains oxygen (predominantly in inclusions) that can react with additionally introduced aluminum. 2) Additional deoxidation of metal by aluminum added into the pouring gate during teeming reduces the oxygen content. The content of stable nonmetallic oxide inclusions separated by electrolysis remains practically constant. Reduced content of iron and manganese oxide and increased content of the silica component is observed in the inclusion composition. The impact resistance of metal at -30°C increases. There are 3 tables, 1 graph and 6 references: 4 are Soviet and 2 English.

ASSOCIATION: Institut chernoy metallurgii Akademii nauk UkrSSR (Institute of Iron Metallurgy of the Academy of Sciences of the Ukrainskaya SSR)

SUBMITTED: March 22, 1960

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S/133/60/000/012/001/015
A054/A027

AUTHORS: Karp, S.F., Kobeza, I.I., Mikhaylov, G.I., and Goncharov, I.A.

TITLE: Behavior of Sulfur in Open-Hearth Furnaces Fired by Natural Gas With Self-Carburization

PERIODICAL: Stal', 1960, No. 12, pp. 1075-1078

TEXT: When open-hearth furnaces are fired by natural gas with self-carburization instead of a coke-oven mixture, the composition of the charge, the amount of additions and mainly the behavior of sulfur in the finished metal and during melting as well, will be different. The Zaporozhstal' Plant, in cooperation with the institutes of gas utilization and iron metallurgy of the AN UkrSSR designed schemes to change the firing system of this plant from coke-oven mixture to self-carburizing natural gas (N.N. Dobrokhotov, I.I. Kobeza, K.A. Greben', L.D. Yupko, V.T. Garchenko, and A.L. Turubiner, Stal', 1960, No. 1) and relevant tests were carried out to investigate the changes in the technology resulting from this new system, and especially the behavior of sulfur during melting and in the finished metal, described in the present article. The experiments covered about 200 meltings according to the conventional technology, while some of them (Group I) were carried out in a natural gas-fired furnace

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Behavior of Sulfur in Open-Hearth Furnaces Fired by Natural Gas With Self-Carburization

and others (Group II) with the usual coke-oven mixture firing. The changes in sulfur content in various stages of the process and in the finished metal were plotted in frequency graphs. During the tests low carbon rimming and killed steels (mainly 08кп = 08kp, ВГВ = VGV, ОВГВ = OVGV, Ст.3сп = St.3sp, 10кп = 10kp, 1кп = 1kp, 2кп = 2kp, 08кпж = 08kpzh, 08ю = 08yu, Ст.3спд = St.3sud, Ст. 4сп = St.4sp etc) were produced, partly by bottom casting, partly by top casting. In the natural gas-firing process the air was enriched by oxygen to about the same degree as when firing with coke-oven mixture. The S-content in the finished metal was found to have decreased, on an average, in the Group I tests to as little as 0.0208%, as compared with the 0.027% S-content of the metals of Group II. The graphs also show that the main part of Group I melts (72%) contains not more than 0.016-0.024 S, whereas the main part of Group II melts contains 0.025-0.030%. In other words: the degree of desulfuration in Group I-metals is 43.8%, whereas the percentage for Group II is 23.4, i.e., 20% lower. The decrease in S-content in the finished metal, in Group I tests, is not accompanied by structural changes in the metal. Another remarkable feature of the change in S-content of the

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metal in the new firing system is that the removal of sulfur is more uniform, it takes place during the entire melting period. Of the total amount of S (0.0162%) removed from the metal, 0.0060% is separated during the first half of the melting process and 0.0102% during its second half, in the Group I melts. When firing with coke-oven mixture, however, 0.0082% S is removed during melting and from this amount only 0.0010% during the first half of the process and 0.0072% during the second. This uniform S-removal from the metal during the Group I meltings is explained by the favorable constant atmosphere of the furnace due to natural gas firing. With regard to temperature it was found that on account of the metal fluidizing more intensively before oxidation its temperature in Group I is about 10-15°C lower than in Group II. With regard to melting time it was established that when firing with self-carburizing natural gas and increasing specific oxygen consumption by 7-8%, the melting time could be shortened by about 1 hour compared with coke-oven mixture firing. The Group I meltings were carried out at the end of the furnace campaign, i.e., under less favorable conditions than those of Group II. Thus, the better

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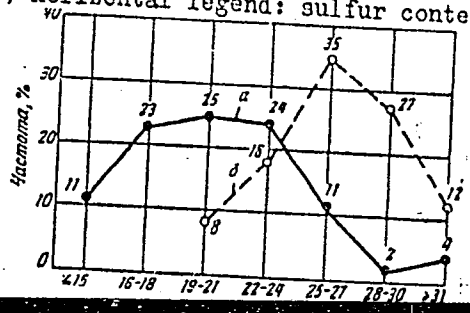
A054/A027

Behavior of Sulfur in Open-Hearth Furnaces Fired by Natural Gas With Self-Carburization

results obtained as regards S-removal from the metal in a natural gas-fired furnace show that in this firing system ageing of the furnace is delayed. There are 6 figures, 2 tables and 1 Soviet reference.

ASSOCIATION: Institut chernoy metallurgii AN USSR (Institute of Iron Metallurgy of the AN UkrSSR) Zavod "Zaporozhstal'" (Zaporozhstal' Plant).

Legend to Figure 1: Frequency curves of the S-content in the finished metal, made in a furnace fired by natural gas with self-carburization (a) and with coke-oven mixture (b). The number above the point means the amount of meltings. Vertical legend: frequency, %; horizontal legend: sulfur content of the finished metal, 10^{-3}%.



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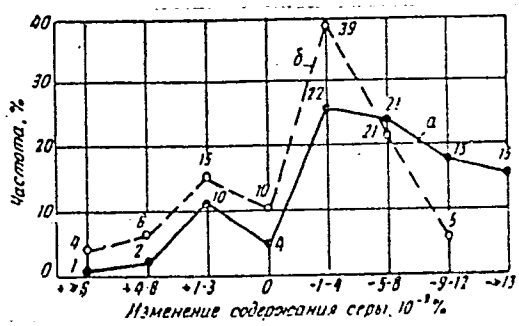
S/133/60/000/012/001/015
A054/A027

Behavior of Sulfur in Open-Hearth Furnaces Fired by Natural Gas With Self-Carburization

Legend to Fig. 5: Frequency curves of the change in sulfur content during melting in a furnace fired by natural gas with self-carburization (a) and with coke-oven mixture (b); the plus values indicate the increase, the minus values the decrease in sulfur content.

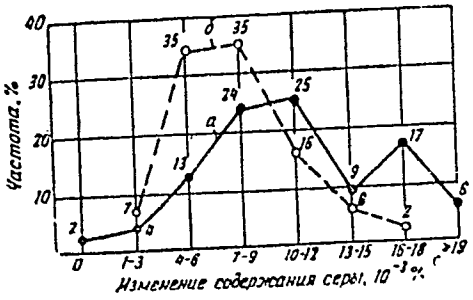


Card 5/6

S/133/60/000/012/001/015
A054/A027

Behavior of Sulfur in Open-Hearth Furnaces Fired by Natural Gas With Self-Carburization

Legend to Fig. 6: Frequency curves of the change in sulfur content during boiling, heat finishing, deoxidation and tapping, in a furnace fired by natural gas with self-carburization (a) and coke-oven mixture (b).



Card 6/6

FEDOROVICH, V.G.; KARP, S.F.

Combined blow of high phosphorous cast iron in laboratory converters. Izv. vys. ucheb. zav.; chern. met. no.8:34-37 '60. (MIRA 13:9)

1. Dneprodzerzhinskiy vecherniy metallurgicheskiy institut.
(Cast iron--Metallurgy) (Converters)

KARP, S.F.

Arrangement for the desulfuration of liquid metal outside of the furnace. Vop.proizv.stali no.8:44-47 '61. (MIRA 14:6)
(Desulfuration) (Liquid metal)

KARP, S.F.; GRECHKO, V.P.

Effect of the deoxidation method of M16C steel on its plasticity in the hot state and its impact toughness. Vop.proizv.stali no.8:48-54 '61. (MIRA 14:6)

(Steel--Metallurgy)

POLYAKOV, S.N., kand.tekhn.nauk; YATSENKO, A.I., inzh.; KARP, S.F., inzh.

Effect of silicon on the reversible temper brittleness of steel.
Trudy Inst.chern.met.AN URSR no.14:24-29 '61. (MIRA 14:10)
(Steel--Brittleness) (Silicon)

POLYAKOV, S.N., kand.tekhn.nauk; KARP, S.F., inzh.; GLIKMAN, Yo.E.

Reversible temper brittleness of carbon steel with a varying silicon content. Trudy Inst.chern.met.AN URSR no.14:30-32 '61. (MIRA 14:10)

(Steel--Brittleness) (Silicon)

KARP, S.F.; FRUMKIN, A.P.

Efficient method of producing ferroaluminum. Stal' 22 no.3:242 Mr '62. (MIRA 15:3)

1. Institut chernoy metallurgii AN USSR i zavod im. Karla Libknekhta.

(Iron-aluminum alloys--Metallurgy)

KOBEZA, I.I.; KARP, S.F.; POKOTILO, Ye.P.

Testing the self-carburation of natural gas in open-hearth furnace ports. Izv.vys.ucheb.zav.; chern.met. 5 no.4:153-159 '62. (MIRA 15:5)

1. Institut chernoy metallurgii AN USSR i Institut ispol'zovaniya gaza AN USSR.
(Open-hearth furnaces) (Gas, Natural)

PORTNYAGINA, V.A.; KARP, V.K.

Synthesis of some isothiuronic salts, derivatives of pyrimidine. Report No.1. Ukr. khim. zhur. 31 no.1:83-85 '65. (MIRA 18:5)

1. Ukrainskiy nauchno-issledovatel'skiy sanitarno-khimicheskiy institut.

PORTNYAGINA, V.A.; KARP, V.K.

Synthesis of some isothiuronium derivatives of pyrimidine. Report No.2. Ukr. khim. zhur. 31 no.2:215-219 '65. (MIRA 18:4)

1. Ukrainskiy nauchno-issledovatel'skiy sanitarno-khimicheskiy institut.

KARP, V. N.

KARP, V. N.-- "On Forced Periodical Oscillations of Strings(On Periodical Solutions of Some Nonlinear Equations of the Hyperbolic Type)." *(Dissertations For Degrees In Science and Engineering Defended at USSR Higher Educational Institutions)(29) Min Higher Education USSR, Uzbek State U imeni Alisher Navoy, Samarkand, 1955

SO: Knizhnaya Letopis' No 29, 16 July 1955

* For the Degree of Candidate in Physicomathematical Sciences

KARP, V. N.

S/003/60/000/009/001/C01
B019/B054

AUTHOR: Frankl', F. I., Doctor of Physical and Mathematical Sciences, Professor

TITLE: Discussion of Problems of Hydroaerodynamics and Mathematical Physics

PERIODICAL: Vestnik vysshey shkoly, 1960, No. 9, pp. 47-48

TEXT: A Conference on Hydroaerodynamics and Mathematical Physics was held at Nal'chik in May 1960 on the initiative of the Fiziko-matematicheskiy fakul'tet Kabardino-Balkarskogo universiteta (Department of Physics and Mathematics of the Kabardino-Balkarian University). Fourteen reports were delivered at the Conference by delegates of five higher institutes of learning and scientific institutes of the Northern Caucasus, as well as of three higher institutes of learning from other oblast' and Republics. The reports by Professor F. I. Frankl' and Senior Teacher I. N. Lenin (Kabardino-Balkarian University) on "The Flow Around Profiles With a Local Supersonic Zone Ending in a Compression

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Shock", by Professor S. V. Fal'kovich of Saratovskiy universitet (Saratov University) on "The Integrals of the Chaplygin Equation With Singular Points on the Parabolic Line", and Senior Teacher [illegible] of Kirgizskiy universitet (Kirgiz University) on "The Application of the Straight-line Method to Certain Boundary-value Problems in the Theory of Transsonic Currents" dealt with the theory of transsonic currents. Problems of theoretical meteorology were dealt with in the report by L. N. Gutman, Doctor of Physical and Mathematical Sciences, of the Kabardino-Balkarskoye otdeleniye Instituta prikladnoy geofiziki AN SSSR (Kabardino-Balkarian Branch of the Institute of Applied Geophysics of the AS USSR) ("On the Theory of [illegible]"). Docent [illegible] of the Stavropol'skiy sel'skokhozyaystvennyy institut (Stavropol' Agricultural Institute) dealt with "Some Problems of Hydrodynamics Within the General Theory of Atmospheric Circulations". Mal'bakhov, Student of the Kabardino-Balkarian University, held a report on "The Vertical Structure of [illegible]". M. Shekasmukhov and K. Arkabayev, Post-graduate Students of the Kabardino-Balkarian University, offered "Examples of the Rotation of Cosmic Gas Masses" and "The Model of a Star

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as Steady Radial Flow of Gas Particles and Photon Gas". A. Abiyldayev, Post-graduate Student of the Kabardino-Balkarian University, in his report dealt with "Some Problems of the Plane-parallel Flow of Heavy Liquids in Channels". Senior Teacher V. I. Men'shikova of the Stavropol'skiy pedagogicheskiy institut (Stavropol' Pedagogical Institute) delivered a report on "Semi-inverse Methods in the Theory of Motion of Ground Water With a Free Surface". Problems of mathematical physics were dealt with in three reports by Senior Teacher I. M. Karasev of the Kabardino-Balkarian University, Docent F. G. Baranovskiy of the Severoosetinskiy pedagogicheskiy institut (North Ossetian Pedagogical Institute), and Docent Ye. I. Zexis of the Stavropol' Pedagogical Institute. Docent V. N. Karp of the Odesskiy politekhnicheskiy institut (Odessa Polytechnic Institute) dealt with the theory of oscillations. Special attention was paid to a report by Professor S. V. Fal'kovich who suggested a greatly improved method of calculating transsonic currents, to a report by Professor L. N. Gutman who suggested an interesting solution to one of the most important problems of local meteorological phenomena, and to a report by K. Arkabayev who gave an ingenious explanation of an important astrophysical

Card 3/4

phenomenon.

ASSOCIATION: Kabardino-Balkarskiy gosudarstvennyy universitet (Kabardino-Balkarian State University)

16.3500

S/020/60/133/003/016/031XX
C 111/ C 333

AUTHOR: Karp, V. N.

TITLE: Existence and Uniqueness of the Periodic Solution to a Non-Linear Problem on Forced Oscillations of a String

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 3, pp. 515-518

TEXT: The author proves existence and uniqueness of the periodic solution of the problem

$$(1)\quad \frac{\partial^2 u}{\partial t^2} - a^2 \frac{\partial^2 u}{\partial x^2} = \phi(x,t) + \varepsilon f\left(x,t,u,\frac{\partial u}{\partial t}\right)$$

$$(2)\quad u(0,t) = u(1,t) = 0$$

$$(3)\quad u(x,0) = u(x,1), \qquad \frac{\partial u(x,0)}{\partial t} = \frac{\partial u(x,1)}{\partial t}$$

Assume that ε is a small parameter and $a = \frac{p}{q}$, where $p = 2k + 1$ $(k=0,1,2,\ldots)$ and $(p,q) = 1$.

In order to prove the theorem the author reduces the problem to the

Card 1/3

85514

S/020/60/133/003/016/031XX
C 111/ C 333

Existence and Uniqueness of the Periodic Solution to a Non-Linear Problem on Forced Oscillations of a String

integrodifferential equation[1]

$$(4)\quad u(x,t) = \frac{2}{\pi a}\int_0^{\pi} d\tau \int_0^{1} \left[\phi(\xi,\tau) + \omega f\left(\xi,\tau,u,\frac{\partial u}{\partial \tau}\right)\right]\cdot$$

$$\cdot K_1(x,\xi;\,t,\tau)\,d\xi + \frac{1}{\pi a}\int_0^{t} d\tau \int_0^{1}\left[\phi(\xi,\tau) + \right.$$

$$\left. + \omega f\left(\xi,\tau,u,\frac{\partial u}{\partial \tau}\right)\right]\cdot K_2(x,\xi;\,t,\tau)\,d\xi$$

and then shows (separately for the cases $a = \frac{2k+1}{2l}$ and $a = \frac{2k+1}{2l+1}$) that the kernels K_1 and K_2 are piecewise constant in the domain $0 \leq x \leq 1$, $0 \leq t \leq 1$. From this, however, according to a former investigation of the author, it follows the existence and uniqueness of the periodic solution.

Card 2/3

65514

S/020/60/133/003/016/031XX
C 111/ C 333

Existence and Uniqueness of the Periodic Solution to a Non-Linear Problem on Forced Oscillations of a String

There is 1 figure.

[Abstracter's note: The mentioned former paper of the author is nowhere explicitly given].

ASSOCIATION: Odesskiy politekhnicheskiy institut (Odessa Polytechnical Institute)

PRESENTED: March 9, 1960, by J. G. Petrovskiy, Academician

SUBMITTED: March 7, 1960

Card 3/3

16,3500

S/140/61/000/006/003/007
C111/C444

AUTHOR: Karp, V. N.

TITLE: The application of the method of wave domains on the solution of the problem of forced non-linear periodic vibrations of a string

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, no. 6, 1961, 51-59

TEXT: Problem: Determine a function $u(x,t)$ which satisfies

$$\frac{\partial^2 u}{\partial t^2} - a^2 \frac{\partial^2 u}{\partial x^2} = \phi(x,t) + \mu f\left(x, t, u, \frac{\partial u}{\partial t}\right) \qquad (1)$$

$$u(0, t) = u(1, t) = 0 \qquad (2)$$

$$u(x,0) = u(x,1), \quad \left.\frac{\partial u}{\partial t}\right|_{t=0} = \left.\frac{\partial u}{\partial t}\right|_{t=1} \qquad (3)$$

a being constant, and which is continuous in $\bar{D} \equiv \{0 \leq x \leq 1,\ 0 \leq t \leq 1\}$ together with all its partial derivatives.

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The application of the method of . . .

Supposed is: a) $\phi'_x(x,t)$, $\phi'_t(x,t)$ are continuous in x, t in $\bar{D}$; b) $\phi(x,t) = \phi(x,t+1)$; c) $\phi(x,t) = \phi(1-x,t)$; d) f'_x, f'_t, f'_u, $f'_{\frac{\partial u}{\partial t}}$ satisfy the Lipschitz condition

$$\left| f'\left(x_1, t_1, u_1, \frac{\partial u_1}{\partial t}\right) - f'\left(x_2, t_2, u_2 \frac{\partial u_2}{\partial t}\right) \right| \leq$$

$$\leq M \left[\left|x_1 - x_2\right| + \left|t_1 - t_2\right| + \left|u_1 - u_2\right| + \left| \frac{\partial u_1}{\partial t} - \frac{\partial u_2}{\partial t} \right| \right]$$

for arbitrary $(x,t) \in \bar{D}$ and arbitrary finite $|u| < C$, $\left|\frac{\partial u}{\partial t}\right| < C$, where $C > 3 \sup\left[|\phi(x,t)|, |\phi'_x(x,t)|, |\phi'_t(x,t)|\right]$

e) $N = \sup\left[|f'_x|, |f'_t|, |f'_u|, \left|f'_{\frac{\partial u}{\partial t}}\right|\right]$, $\left|f\left(x,t,u,\frac{\partial u}{\partial t}\right)\right| < P$,

f) $f(x,t,\alpha,\beta) = f(x,t+1,\alpha,\beta)$,

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The application of the method of . . .

g) $f(x,t,\alpha,\beta) = f(1-x,\ t,\ \alpha,\beta)$.

Theorem 1: The differential equation (1) possesses a solution which is continuous in $\overline{D}$ together with all partial derivatives up to the second order, is periodic in t with period 1 and satisfies (2), (3), if 1.) the conditions a) - g) are satisfied,

2) $|\mu| < \min\left(1,\ \frac{1}{24R(1+2L)},\ \frac{C}{6P}\right)$,

where

$R = \max(M, N)$, $L = \max\left\{C,\ \frac{3}{2}\left[N(1+C) + P\right]\right\}$

3) a is an arbitrary odd number.

The proof follows by aid of successive approximations, where as a first approximation $u_o(x,t)$ the solution of

$$\frac{\partial^2 u_o}{\partial t^2} - a^2 \frac{\partial^2 u_o}{\partial x^2} = \phi(x,t) \qquad (5)$$

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The application of the method of . . .

is taken which satisfies (2), (3). This solution is searched as a series

$$u_o(x,t) = \sum_{n=0}^{\infty} T^{(0)}_{2n+1}(t) \sin (2n+1)\pi x, \qquad (6)$$

where the domain $\bar{D}$ is cut into subdomains which are called wave domains because of their boundaries being either identic with the expansion directions of the string waves or parallel to them. In these subdomains of $\bar{D}$ it is possible to sum up the kernel

$$K(x,\xi;\ t,\tau) = \sum_{n=0}^{\infty} \frac{\sin(2n+1)\pi x \sin(2n+1)\pi\xi \sin(2n+1)\pi a(t-\tau)}{2n+1}$$

of the representation

$$u_o(x,t) = \frac{1}{\pi a} \int_0^t d\tau \int_0^1 \phi\ (\xi,\tau)\ K(x,\xi;\ t,\tau)\ d\xi$$

Card 4/6

The application of the method of . . .

$$-\frac{1}{\pi a}\int_{t}^{1} d\tau \int_{0}^{1} \Phi(\xi,\tau)\, K(x,\xi;t,\tau)\, d\xi \qquad (8)$$

of $u_0(x,t)$, (it takes the values 0, $\pm\frac{\pi}{4}$, $\pm\frac{\pi}{8}$) and thus for $u_0(x,t)$ (and similarly for higher approximations) to attain the expression

$$u_0(x,t) = \frac{1}{4}\iint_{\sigma_1} \Phi(\xi,\tau)\, d\xi\, d\tau + \frac{1}{8}\sum_{i=2}^{7}\iint_{\sigma_i} \Phi(\xi,\tau)\, d\xi\, d\tau +$$

$$+ \frac{1}{4}\iint_{\sigma_3} \Phi(\xi,\tau)\, d\xi\, d\tau \qquad (9)$$

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The application of the method of . . .

where σ_k indicates the mentioned wave domains. The representation (9) then serves as base for the proof of the particular assertions of theorem 1.

Theorem 2 says that under the suppositions of theorem 1 the obtained solution is unique.

The author mentions N. A. Artem'yev, P. V. Solov'yev, A. P. Mitryakov.

There are 2 figures and 5 Soviet-bloc references.

ASSOCIATION: Odesskiy politekhnicheskiy institut (Odessa Polytechnic Institute)

SUBMITTED: April 7, 1959

Card 6/6

KARP, V.N.

Application of the wave domain method to solving problems of forced nonlinear periodic oscillations of a string. Izv. vys. ucheb. zav.; mat. no.6:51-59 '61. (MIRA 15:3)

1. Odesskiy politekhnicheskiy institut.
(Oscillations) (Wave-motion, Theory of)

KARP, V.N. (Odessa)

Existence and uniqueness of the periodic solution to a certain nonlinear hyperbolic equation. Izv. vys. ucheb. zav.; mat. no. 5:43-50 '63. (MIRA 16:11)

KARP, V.S.

USSR/Miscellaneous - Instruments

Card 1/1 Pub. 133 - 5/23

Authors : Karp, V. S., Chief Engineer of the Odessa Factory controlled by the Ministry of Communications; and Litmanov, Ya. L., Engineer

Title : An "IR-2" (ИР-2) type instrument for testing discharges

Periodical : Vest. svyazi 8, 8-9, Aug 1954

Abstract : The "IR-2" instrument used for testing dischargers of the RA(PA) and RB(PБ) types, carbon-type and other type dischargers installed on communication lines, is described. The difference between the "IR-2" testing instruments and the earlier "IR-49" instrument is outlined and the relative advantages of the former (IR-2) type explained. The method of assembly and operation of the instrument is demonstrated and an operation chart is included. Diagrams; illustration; table.

Institution : ...

Submitted : ...

KUPERMAN, L.M., inzhener; KARP, V.S., inzhener.

PKSV brand jumper wire. Vest.sviazi 17 no.1:14 Ja '57. (MLRA 10:2)

1.Odesskiy kabel'nyy zavod (for Kuperman).
(Telephone lines)

KARP, Wilhelm; MARCINKOWSKI, Mieczyslaw; BARTKOWSKI, Stanislaw

Case of eosophilic granuloma of maxilla and mandible. Pol. tyg. lek. 20 no.35:1336-1337 30 Ag '65.

1. Z Kliniki Radiologicznej AM w Krakowie (Kierownik: prof. dr. St. Januszkiewicz) i z Kliniki Chirurgii Stomatologicznej AM w Krakowie (Kierownik: doc. dr. T. Pawela).

JANUSZKIEWICZ, St.; KARP, W.; MARCINKOWSKI, M.; NATURSKA-TARGOSZ, H.; SZUL, H.

Development of medical radiology in Cracow. Pol. tyg. lek. 20 no.21:778-780 24 My '65.

1. Z Kliniki Radiologicznej AM w Krakowie (Kierownik: prof. dr. St. Januszkiewicz).

WITEK, Jerzy; KARP, Wilhelm

Radiological contribution to the diagnosis of optic nerve diseases. Pol. tyg. lek. 19 no.23:869-871 1 Je'64

1. Z Kliniki Radiologicznej Akademii Medycznej w Krakowie; kierownik: prof. dr. Stanislaw Januszkiewicz.

KARP, Ye.M., inzh.

Designs of joints for precast reinforced concrete structures. Gidr. i mel. 17 no.2:32-38 F '65. (MIRA 18:5)

1. Nauchno-tekhnicheskoye obshchestvo stroitel'noy industrii.

KARP, YE. M.

28512

I Pyetrov, V. G. Sovyeshchaniye O Srokakh Syeva Khlopchatnika I Sistyemye Dopesyevnoy Obrabotki Pochvy (Akad Nauk U)byek SSR, 18 I 19 Marta 1949 G) Izvyestiya Akad Nauk U)SSR, 1949 No. 2, S. 118-22

SO: LETOPIS NO. 38

KARP, Ye.M.

KUZNETSOV, Sergey Grigor'yevich; RODIONOV, Adrian Vladimirovich; KARP, Ye.M., red.; CHERNOV, V.S., tekhn.red.

[Automobile transportation in the building of hydroelectric power plants] Avtotransport na stroitel'stve gidroelektrostantsii. Moskva, Gos.energ. izd-vo, 1957. 79 p. (V pomoshch' gidroenergetichoskim stroikam, no.23) (MIRA 11:3)
(Hydroelectric power stations)
(Transportation, Automotive)

BIYANOV, Gavriil Fedorovich; KARP, Ye.M., red.; MEDVEDEV, L.Ya., tekhn. red.

[Lowering water levels in the construction of hydroelectric power stations] Vodoponizhenie pri stroitel'stve gidroelektrostantsii. Moskva, Gos. energ. izd-vo, 1958. 85 p. (MIRA 11:9)
(Water, Underground)

VOLNIN, Boris Aleksandrovich, kand.tekhn.nauk; KARP, Ye.M., red.; VORONIN, K.P., tekhn.red.

[High hydraulic and semihydraulic dams in the U.S.A.] Vysokie namyvnye i polunamyvnye plotiny SShA. Moskva, Gos.energ.izd-vo 1958. 87 p. (MIRA 12:4)
(United States--Dams)

LUKHTANOV, F.V.; CHERNYAVSKIY, M.M.; KARP, Ye.M., red.; LARIONOV, G.Ye., tekhn.red.

[Kakhovka Hydroelectric Station] Kakhovskaia gidroelektrostantsiia. Moskva, Gos.energ.izd-vo, 1959. 182 p. (MIRA 12:8)
(Kakhovka Hydroelectric Power Station)

KANDALOV, Innokentiy Ivanovich, prof.; KARP, Ye.M., red.; SHIKIN, S.T., tekhn.red.

[Organization of construction of hydroelectric power station] Organizatsiia stroitel'stva gidroelektrostantsii. Moskva, Gos. energ.izd-vo, 1960. 194 p. (MIRA 13:9)
(Hydroelectric power stations)

KARP, YU.

Oscillograph

Simple oscillograph. Radio No. 5, 1953.

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

KAMINSKIY, V.V., inzh.; KARP, Yu.S., inzh.

Automatic recording of highway traffic. Avt. dor. 24 no. 1:16-17 Ja '61. (MIRA 14:2)
(Latvia—Traffic engineering)

ACCESSION NR: AT4038177 S/2690/63/005/006/0291/0294

AUTHORS: Karp, Yu. S.; Plyatsok, Z. A.

TITLE: Electric breakdown of electron-hole junctions in the pulsed mode

SOURCE: AN LatSSR. Institut elektroniki i vy*chislitel'noy tekhniki. Trudy*, v. 5, 1963. Avtomatika i vy*chislitel'naya tekhnika (Automation and computer engineering), no. 6, 291-294

TOPIC TAGS: transistor, electron hole, emitter, dielectric strength, measurement method

ABSTRACT: The breakdown voltage of the emitter junction of a P416 transistor was determined as a function of the pulse duration. The research was stimulated by the fact that the breakdown voltage is one of the factors limiting the use of transistors in many circuits. The dependence of the breakdown voltage on the pulse repetition

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ACCESSION NR: AT4038177

period was also tested. The repetition period was made smaller than the carrier recovery time (10^{-3} sec). The results obtained are interpreted from the point of view of the carrier surface recombination and other factors. The most dangerous pulse durations turn out to be 10^{-6}--10^{-3} sec. Orig. art. has: 4 figures and 3 formulas.

ASSOCIATION: None

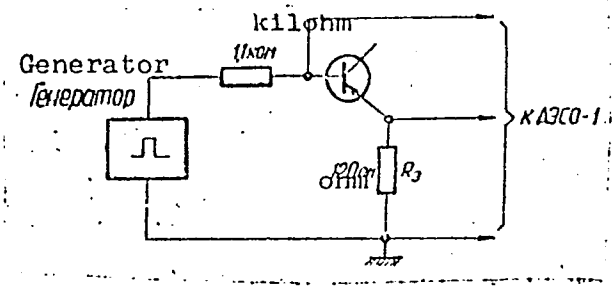
SUBMITTED: 00 DATE ACQ: 04Jun64 ENCL: 01

SUB CODE: EC, IE NR REF SOV: 002 OTHER: 001

Card 2/3

ACCESSION NR: AT4038177

ENCLOSURE: 01



Measurement circuit

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L 8350-65 EWT(1)/EWA(h) Peb AEDC/ESD(dp)/AFETR/ASD(a)-5/REAM(t)/ASD(d)/
AEDC(a)

ACCESSION NR: AP4048808 S/0286/64/000/013/0084/0084

AUTHOR: Karp, Yu. S.; Pelipeyko, V. A.; Kruss, I. P.; Blauberg, Ya. Ya.; Lukstraup, G. R.

TITLE: Device for examining weak instabilities of feedback currents of junctions of semiconductor instruments. Class 42, No. 163820

SOURCE: Byulleten' izobretenly i tovarny*kh znakov, no. 13, 1964, 84

TOPIC TAGS: semiconductor equipment, magnetic amplifier, current sensor, automatic control

TRANSLATION: A device for examining weak instabilities of feedback currents of junctions of semiconductor instruments, containing a two-cycle, two-half-period magnetic amplifier used as a current sensor, a capacitive memory element, comparison circuit which processes a signal of predetermined polarity independent of the polarity of the signals of instability, and an indication circuit. The distinguishing feature is automation of the process of examination and elimination of errors made by the operator. Parallel to the magnetic

L 8850-65
ACCESSION NR: AP4048808

amplifier load a memory element is connected which fixes the voltage proportional to the magnitude of the feedback current of the testing junction.

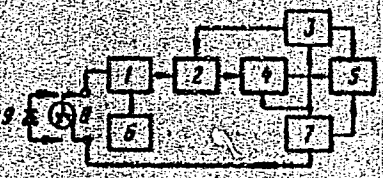
ASSOCIATION: Institut elektroniki i Vy*chislitel'noi tezhniki AN Latviyskoy SSR (Institute of Electronics and Computer Technology, AN Latvian SSR)

SUBMITTED: 14May63 ENCL: 01 SUB CODE: EC, IE

NO REF SOV: 000 OTHER: 000 JPRS

Card 1 2/3

L 9850-65
ACCESSION NR: AP4048808 ENCLOSURE: 01



Keys: 1 - two-cycle two-half-period magnetic amplifier; 2 - comparison circuit; 3 - electronic time relay; 4 - trigger; 5 - commutation circuit; 6 - stabilized voltage source; 7 - device supply source; 8 - tested transistor; 9 - tested diode

Card 3/3

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KARPACHEV, A.A., inzh.; RASSKAZOV, O.A., kand.tekhn.nauk

Cost of river crossing dropped twenty times. Avt.dor. 27 no.11:12-13 N '64. (MIRA 18:4)

KARPACHEV, B.

Our technological terminology. p. 21

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KARPACHEV, D.

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So: East European Accession, Vol. 6, No. 2, Feb. 1957

KARPACHEV, L.

KARPACHEV, L. Mistaken switching on of electric measuring instruments. p. 43.

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So: East European Accession, Vol. 6, No. 3, March 1957

LAZAROV, B.

LAZAROV, B. Practical picture taking of vectorial diagrams. p. 18.

Vol. 7, No. 1, Aug. 1956.
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So: East European Accession, Vol. 6, No. 3, March 1957

KARPACHEV, Boris, inzh.

Our production of electric measuring instruments. Elektroenergiia 13 no.3:24-26 Mr '62.

KARPACHEV D.G.

137-58-6-12276

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 157 (USSR)

AUTHOR: Karpachev, D.G.

TITLE: Rolling Brass Condenser Tubes to Their Final Dimensions (Prokatka latunnykh kondensatornykh trub na gotovyy razmer)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 10, pp 32-38

ABSTRACT: A description is provided of the production of brass tubes (T) by the Artemovsk Plant with KhPT-55 and KhPT-32 mills. The mills are described, and a graphic comparison is given of the time required for the process cycle involved in the manufacture of condenser tubes by double extrusion and double rolling, the latter being the more advantageous. Such questions as rolling lubricants, quality, mechanical properties, and variations in wall thickness of the finished tubing are examined. The design of the shaping of the working tool is based on the method suggested by Teterin, with some changes and additions adopted on the basis of the experiences of the Nikopol and Pervoural'sk Plants, and also of the Moscow Steel Institute im. Stalin. The capacity of KhPT mills may be increased considerably in the process of further development of the equipment by

Card 1/2

137-58-6-12276

Rolling Brass Condenser Tubes to Their Final Dimensions

increasing the feed and the number of two-way passes, and by reduction in stoppages for adjustment of the process.

V.O.

1. Condenser tubes--Production 2 Brass tubing--Processing 3. Rolling mills --Applications

Card 2/2

137-58-4-7191

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 124 (USSR)

AUTHORS: Mal'tsev, N. A., Karpachev, D. G.

TITLE: Dressing Metal Powder Dies by Oxygen Oxidation (Razdelka metallokeramicheskikh volok okisleniyem kislorodom)

PERIODICAL: Byull. tsvetn. metallurgii, 1957, Nr 14, pp 26-27

ABSTRACT: A description is offered of a method of dressing (D) to a new size metal powder dies (DI) that have worn out of tolerance when the wear has attained 1 mm or more. The D is conducted in a furnace heated to 860°C, O_2 under 0.1-0.2 atm. pressure being introduced into the DI hole, resulting in oxidation of the DI metal. The amount of removal of material required is determined by the time of holding in the furnace. About 15 min are needed to remove 1 mm. The outside of the DI is preserved against oxidation by a steel collar and asbestos. After D, the DI is subjected to finishing. D of metal powder DI by oxidation makes for a considerable increase in labor productivity and makes it possible to save the oxides, which contain materials in short supply.

V. F.

Card 1/1 1. Dies--Maintenance 2. Oxidation--Applications

KARPACHEV, E.[Karpachou, E.]

Your studies will enlighten your mind. Rab i sial 37 no.3:4-5 Mr '61.
(MIRA 14:3)

1. Zavod iskusstvennogo volokna, g. Mogilev.
(Mogilev—Adult education)

KARPACHEV, Ed. [Karpachou, Ed.]

Future employees of our roads of steel. Rab.i sial. 38 no.9: 14 S '62. (MIRA 15:9)
(Gomel'—Railroad engineering—Study and teaching)

KARPACHEV, G.

Growth of budget appropriations in the economic and cultural development of Vilnius. Fin. SSSR 16 no.1:59-61 Ja '55. (MLRA 7:12)
(Vilnius--Budget)

KARPACHEV, G.

Increase the activity of lower financial organs. Fin.SSSR 18 no.1:49-51 Ja '57. (MLRA 10:2)

1. Starshiy ekonomist Ministerstva finansov Litovskoy SSR.
(Lithuania--Finance)

SOV/124-58-10-11806

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 10, p 149 (USSR)

AUTHOR: Karpachev, N. F.

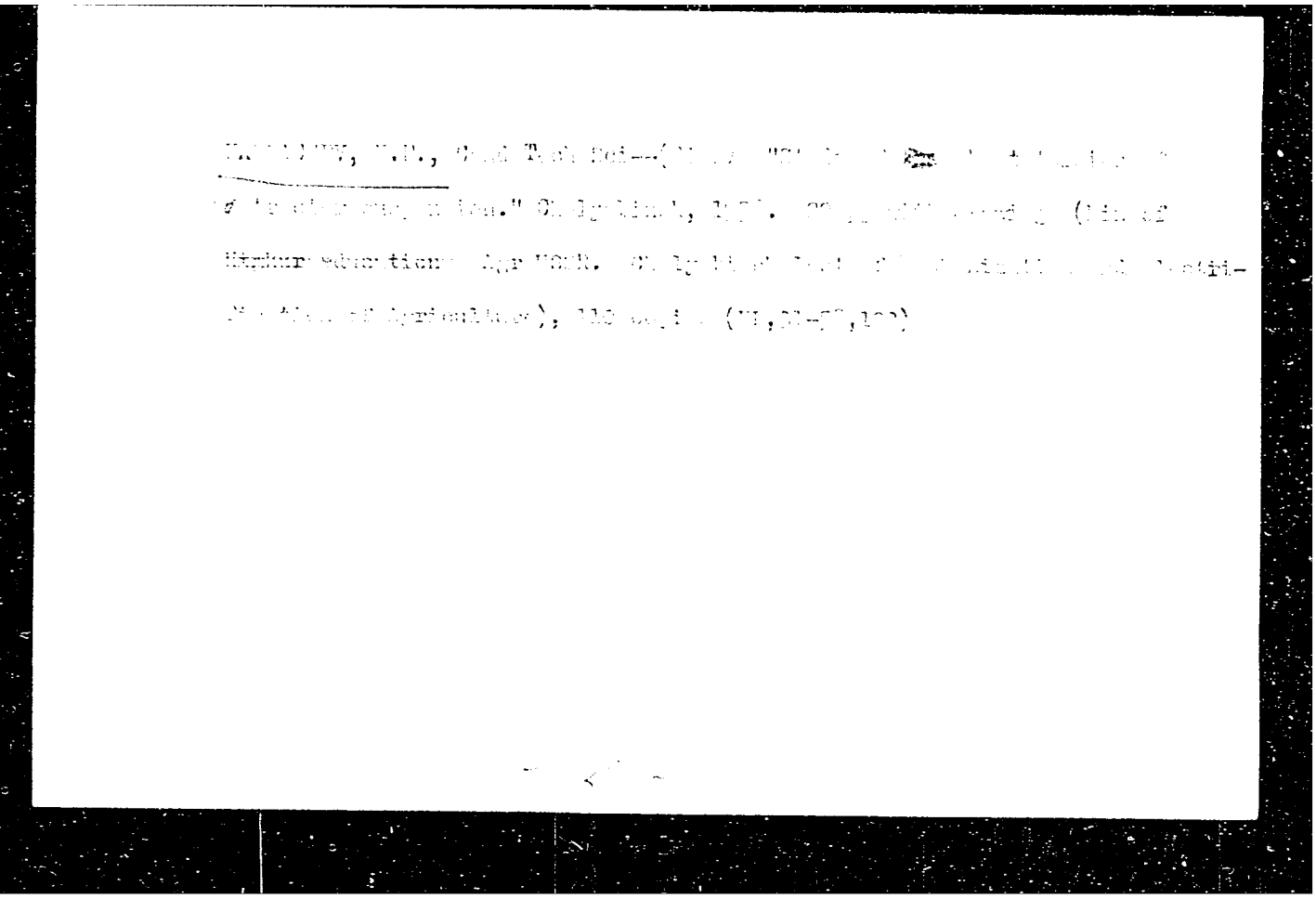
TITLE: An Investigation of Torsion of a Laminated Bar (Issledovaniye kruchenigo torsiona)

PERIODICAL: Sb. statey. Chelyab. politekh. in-t, 1957, Nr 11, pp 20-47

ABSTRACT: The computation of a torsion bar composed of a pack of thin sheets of metal is examined. The torsional stiffness is a function of the shear modulus and the polar moment of inertia of the cross-sectional area. It is determined with the aid of energy considerations. In evaluating the energy components the author assumes that each sheet is subjected to both bending and twisting. Elongation of the sheets is not taken into consideration. A correction factor for friction between the sheets is introduced at a later point. Calculated and experimental results are in good agreement.

V. I. Feodos'yev

Card 1/1



KARPACHEV, P.S., starshiy prepodavatel'; PAKHOMOV, V.V., inzh.

New method of applying viscous mastics on shoe parts. Nauch.trudy MTILP no.18:147-154 '60. (MIRA 15:2)

1. Kafedra mashin i apparatov legkoy promyshlennosti Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.
(Shoe machinery)