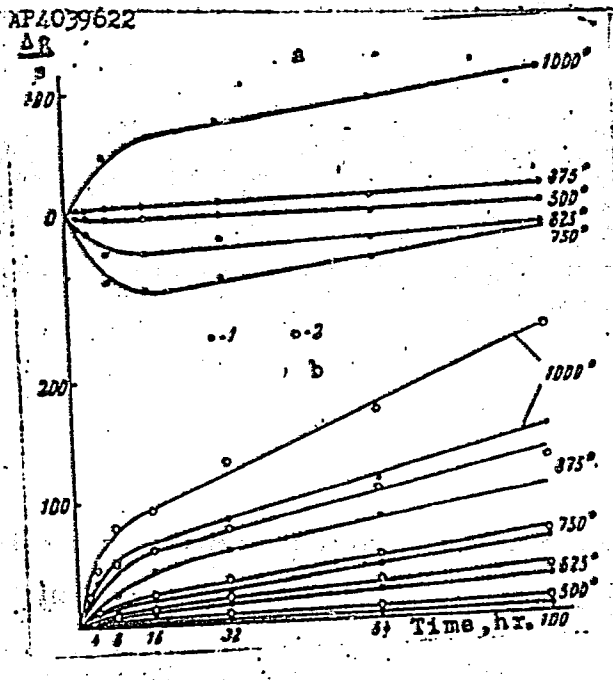
AP4039622



ENCLOSURE: 01

Fig. 1. Weight gain - time curves

a - Zirconium boride; b - alloys: 1 - ZrB_2 + 14.4% Fe; 2 - ZrB_2 + 22.9% Fe.

Card 3/3

FUNKE, V.F.; YUDKOVSKIY, S.I.; Prinimali uchastiye: CHERENKOVA, V.A.; [illegible]OROV, V.I.

High temperature oxidation of alloys of zirconium boride with iron group metals. Zhur. fiz. khim. 38 no.5:1280-1283 My '64. (MIRA 18:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tverdykh splavov. Submitted March 13, 1963.

ACCESSION NR: AR5004788 S/0137/6[illegible]

SOURCE: Ref. zh. Metallurgiya, Abs. 10T573

AUTHOR: Yudkovskiy, S. I.; Mykmans, E. F.; Gun[illegible] V. F.; Romanov, K. F.; Smirnov, F. F.

TITLE: Cutting and physicomechanical properties titanium boride base

CITED SOURCE: Sb. tr. Vses. n.-i. in-t tverdykh [illegible] 1964, 130-141

TOPIC TAGS: titanium base alloy, boron containing [illegible] containing alloy, titanium diboride alloy, metal [illegible] metal physical property, cutting tool

SOV/122-58-8-25/29

AUTHOR: Yudl, I., Engineer, and Novotnyy, V.

TITLE: Supercharged, Diesel Engines at the Third Exhibition of Czechoslovak Engineering (Dizeli s nadduvom na III vystavke chekhoslovatskogo mashinostroyeniya)

PERIODICAL: Vestnik mashinostroyeniya, 1958, Nr 8, pp 81 - 84(USSR)

ABSTRACT: Abridged translation of an article in the Czech Journal "Strojirenstvi", 1957, Nr 8.

1. Diesel engines---Czechoslovakia 2. Superchargers---Application

Card 1/1

GITSHTEYN, I.S.; YUDOCHKIN, V.G.

Time marker for the MPO-2 oscillograph. Priborostroenie no.9:28-29 S '60. (MIRA 13:9)
(Automatic timers) (Oscillograph)

YUDOCHKIN, V.G.

Repairing oscillography loops. Izm. tekh. no. 1:59 Ja '61.
(MIRA 14:1)

(Oscillograph)

S/119/62/000/007/006/006
I045/1245

AUTHORS: Bragin, V. A., Mayorov, A. N., Yudochkin, V. G.

TITLE: Cooling experiments with the "Ural" machine

PERIODICAL: Priborostroyenie, no. 7, 1962, 30-31

TEXT: The cooling system of ЦВМ (TsVM) "Ural 1" has a thermostat consisting of a thermometer and a relay which activates a cooling water valve to reduce the temperature of the circulating air to 29–29.5°C. When the temperature of the air falls below 29°C the valve is closed by means of a spring. The overheating of the circulating air is signalled at 32–33°C. by a system consisting of a thermometer, a relay, and a bell. There are 2 figures.

Card 1/1

BRAGIN, V.A.; MAYOROV, A.N.; YUDOCHKIN, V.G.

Cooling the "Ural" computer. Priborostroenie no.7:30-31 Jl '62. (MIRA 15:7)

(Electronic digital computers—Cooling)

YUDOLOVICH, M.Ya.; BEKMAN, Yu.K., vedushchiy redaktor; TROFIMOV, A.V., tekhnicheskiy redaktor

[Lubrication of equipment used in the petroleum industry; a reference manual] Smazka neftepromyslovogo oborudovaniia; spravochnoe rukovodstvo. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1951. 47 p. (MLRA 10:1)

(Lubrication and lubricants)
(Petroleum industry--Equipment and supplies)

YUDOLOVICH, M Ya.

SHAYDEROV, B.M.; YUDOLOVICH, M.Ya.

[Oil-field mechanic's handbook] Spravochnik mekhanika neftepromyslov. Sostavili B.M.Shaiderov i M.IA.IUdolovich. Vol.2. [Drilling] Burenie. Moskva, Gos. nauchno-tekhnicheskoe izd-vo neftianoi i gornotoplivnoi lit-ry. 1953. 539 p. (MLRA 7:2)

(Petroleum--Well boring)

YUDOLOVICH, M. Ye., MIKHAYLOV, K.F.

Installation and Repair of Petroleum Industry Equipment. Gostoptekhizdat, 1956, 431 p, price: rubles 11.30. Admitted by the Board of Control of Teaching Institutions of the Ministry of the Oil Industry of USSR as a textbook aid for petroleum technical schools. In book is exposed in detail the technical repair of drilling and oil-trade equipment. Moreover, there is described the installation and dismantling of equipment with the application of efficient methods of work organization. Book may also be useful for drill bureau mechanics and workers in the trade.

So: A-30[illegible]0689

YUDOLOVICH, Mark Yakovlevich; SVYATITSKAYA, K.P., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Mechanic's handbook on repairing equipemtn ured in the petroleum industry] Spravochnik mekhanika po remontu neftepromyslovogo oborudovaniia. Moskva, Gos. nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1958. 513 p. (MIRA 11:4)
(Petroleum industry--Equipment and supplies--Maintenance and repair)

YUDOLOVICH, V.V.

GREBENSHCHIKOV, P.A., obshchiy red.; YUDOLOVICH, V.V., red.; VYATKIN, G.P., red., NERUCHEV, G.A., red.; SUKHORUKOV, M.A., red.; STRAZH, Ye.F., red. MUKHINA, A.I., red.; KOLESNIKOV, F.M., red.izd-va; SEMENCHENKO, P.P., tekhn.red.

[Economy of the Chechen-Ingush A.S.S.R.; a statistical manual] Narodnoe khoziaistvo Checheno-Ingushskoi ASSR; statisticheskii sbornik. [Groznyi] Checheno-Ingushskoe knizhnoe izd-vo, 1957. 131 p. (MIRA 11:3)

1. Chechen-Ingush A.S.S.R. Statisticheskoye upravleniye. 2. Nachal'nik Statisticheskogo upravleniya Checheno-Ingushskoy ASSR (for Grebenshchikov)
(Chechen-Ingush A.S.S.R.—Statistics)

TOLUBANOV, A.F.; GRIGOR'YEVA, V.D.; MUKHINA, A.I.; YUDOLOVICH, V.V.; ULANOVA, K.M.; DAMBIT, N.P.; GREBENSHCHIKOV, P.A., red.; YARLOKOVA, G.I., red.izd-va; YUPATEV, Kh., tekhn.red.

[Forty years of the Chechen-Ingush A.S.S.R.; statistics] Checheno-Ingushskaia ASSR za 40 let; statisticheskii sbornik. Groznyi, Checheno-Ingushskoe knizhnoe izd-vo, 1960. 184 p. (MIRA 13:10)

1. Chechen-Ingush A.S.S.R. Statisticheskoye upravleniye.
2. Nachal'nik Statisticheskogo upravleniya Checheno-Ingushskoy ASSR (for Grebenshchikov).

(Chechen-Ingush A.S.S.R.--Statistics)

YUDOV, A.Z.

Savings accumulated by the Leningrad locomotive engineers: 3,600 kolowatt-hours in 9 months. Elek. i tepl. tiaga 9 no.11: 9-11 N '65. (MIRA 19:1)

1. Nachal'nik proizvodstvenno-tekhnicheskogo otdela depo Leningrad-Passazhirskiy-Moskovskiy.

8(6)

SOV/112-59-4-7002

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 82 (USSR)

AUTHOR: Yudov, M. F.

TITLE: Results of Studying Electrodynamic Forces in Stator Windings of Hydroelectric Generators and High-Power Synchronous Motors

PERIODICAL: V sb.: Eksperim.izuch. mekhan. usiliy v gidrogeneratorakh. M.-L., Gosenergoizdat, 1957, pp 45-69

ABSTRACT: Results of analytical and experimental studies of electrodynamic forces in the stator windings of hydroelectric generators and high-power synchronous motors are presented. Methods of an experimental investigation with strain-gauge elements and a special deformation primary element, and also with a high-speed cinema filming are described. The experimental results show that the deformation and vibration of stator-winding ends are proportional to the square of the stator current and that their values are of the same order as the estimated values. On various transient conditions the insulation

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Results of Studying Electrodynamic Forces in Stator Windings of Hydroelectric . . . .

deformation remains elastic and returns to its initial state. Mechanical stresses engendered in the insulation are tens of times lower than the destructive stress; the influence of vibration upon insulation aging has been neglected in the experiments. Formulae and a sample computation of principal components of the stator-winding force are submitted.

V.P.A.

8(5)

AUTHOR: Yudov, M. F., Engineer SOV/105-58-12-9/28

TITLE: Experimental Investigation of Deformation and Vibration of Stator Windings (Eksperimental'noye izucheniye deformatsiy i vibratsiy obmotok statorov)

PERIODICAL: Elektrichestvo, 1958, Nr 12, pp 39 - 43 (USSR)

ABSTRACT: Here the results of experiments are given by which deformation and vibration of stator windings of generators driven by hydro-electric engines and high tension electromotors are investigated. These investigations were carried out by the author in the VNIIE MES. Works were recently carried out by the VNIIE for the establishment of the necessary instruments and for the elaboration of a method for the investigation of the results of the influence of electro-dynamic forces on the stators of generators and synchronous electromotors. The deformation of surface layers of the insulation and the displacement (vibrations) of the front parts of the windings as to the spacer of the transducer steel in the body of the stator were measured. First of all the rods were investigated which are near the limit of the phase zone (the outer rods

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in each phase), as they are stressed by the highest electrodynamic forces. (Refs 1,2,3). Deformation and vibration were measured with the help of tensors of wire and of tensometric amplifier installations of two types which were developed in the ORGRES and in the Laboratoriya issledovaniya napryazheniy Instituta Mashinovedeniya Akademii nauk SSSR (Laboratory for Tension Investigations at the Machinery Building Institute of the Academy of Sciences of the USSR). A high-speed motion picture was also used to measure the vibrations of the winding of the electromotor. The investigations show that it is suitable to complete the mathematical analysis by test data. It proved to be advantageous to use a tensometric device for the investigation of the deformation and vibration and high speed motion picture cameras for measuring vibrations. It was found that the deformations of insulation and the vibrations of the front parts of the stator windings, which were observed at differently operating generators, are unimportant. There are 3 figures, 3 tables, and 11 references, 8 of which are Soviet.

8 (5)

AUTHOR: Yudov, M. F., Engineer SOV/105-59-6-20/28

TITLE: Vibrations and Deformations of the Stator Windings of a Shock Oscillator of the Type TI-75-2 (Vibratsii i deformatsii obmotki statora udarnogo generatora tipa TI-75-2)

PERIODICAL: Elektrichestvo, 1959, Nr 6, pp 86 - 89 (USSR)

ABSTRACT: These investigations were carried out at the Vsesoyuznyy nauchno-issledovatel'skiy institut elektroenergetiki (All-Union Scientific Research Institute of Electric Engineering), the factory "Elektrosila", the Leningradskiy filial VEI im. Lenina (Leningrad Branch of the VEI imeni Lenin) and the Lenenergo. It was intended to study the vibrations and deformations of the stator winding under different kinds of connection and under differing short-circuit currents. The shock oscillator under investigation was intended to serve in the testing of the commutation apparatus. In these tests, the stator windings were connected in star, delta and zigzag. The shock oscillator has been produced by the factory "Elektrosila", with a nominal voltage of 8.5 kv, permitting maximum voltages of 11 kv. The maximum admissible current under symmetrical short-circuit equals 120 ka. The investigations showed that from the viewpoint

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Vibrations and Deformations of the Stator Windings of a Shock Oscillator of the Type TI-75-2 SOV/105-59-6-20/28

of the mechanical effects on the aggregate, the star and delta connection are to be preferred. A zigzag connection should be used only in cases, where the required short-circuit power cannot be reached in star or delta connection, in which case the stator current should not exceed 80 ka_{max}. It was found in the investigations that 1) in order to minimize the deformation of the insulation of the coil rods in the edge lamination packets the design of the shock oscillator must be improved so as to give a tighter fastening of the rods in this section. The winding of the front flanges must also be changed in order to reduce the transmission of forces from touching massive vibrating parts. The choice of economical methods of fastening the windings must be made on the basis of tests on specially designed and constructed models of front flange fastenings of stator windings. There are 4 figures and 2 references, 1 of which is Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut elektroenergetiki (All-Union Scientific Research Institute of Electric Engineering

SUBMITTED: October 11, 1958

Card 2/2

ZHDANOV, V.S., inzh.; FRADKIN, B.M., inzh.; YUDOV, M.F., inzh.

Simplifying the starting circuit for synchronous motors of large pumping units. Elek. sta. 30 no.3:53-56 Mr '59.
(MIRA 12:5)
(Electric motors, Synchronous) (Pumping machinery)

YUDOV, M.F., inzh.

Investigating deformations in compounded insulation of the stator-winding rod. Vest.elektroprom. 31 no.2:23-27 F '60. (MIRA 13:6)

(Electric machinery)

YUDOV, M. F.

Cand Tech Sci - (diss) "Experimental study of mechanical [illegible]
in the stator windings of synchronous machines." [illegible]
[illegible] Energy Publishing House, 1957.
[illegible] Electromechanical Specialties [illegible]
Power Inst.; 220 copies; free; [illegible]

RATALOV, Yu.N., inzh.; BESCHASTNOV, G.A., inzh.; YUDOV, M.F., kand.tekhn. nauk

Start of a large synchronous hydrogenerator in a motor mode of operation. Elektrotekhnika 36 no.8:11-16 Ag '65. (MIRA 18:9)

YUDOV, M.F., kand. tekhn. nauk

Vibration of hydrogenerator stator windings. Elektrotekhnika 36 no.8:44-46 Ag '65. (MIRA 18:9)

YUDOV, M.P., inzh.

Experimental testing of the failure possibilities of generator switches in an enlarged block of hydrogenerators. Elek. sta. 32 no.1:56-60 Ja '61. (MIRA 16:7)

(Turbogenerators) (Electric cutouts)

YUDOV, N.N.

Case of foreign bodies of the esophagus. Vest.oto-rin. 20 no.6:120 N-D '58 (MIRA 11:12)

1. Iz Oto-rino-laringologicheskogo otdeleniya bolezney ukha, gorla i nosa gorodskoy bol'nitsy No.7, Komsomol'sk-na-Amure.
(ESOPHAGUS, foreign bodies,
melon seed & duralumin foil, removal (Rus))

YUDOV, N.N.

Fatal tracheal hemorrhage after zinc chloride burns. Vest. otorin. 21 no.4:92-93 Jl-Ag '59. (MIRA 12:10)

1. Iz Loringologicheskogo otdeleniya gorodskoy bol'nitsy No.7 Komsomol'ska-na-Amure.
(TRACHEA wds. & inj.)
(ZINC eff., inj.)
(CHLORIDES eff., inj.)

YUDOV, N.N.

Relapsing calculus of the palatine tonsils. Zhur. ush., nos. i gorl. bol. 20 no.1:75-76 Ja-F '60. (MIRA 14:5)

1. Otorinolaringicheskoye otdeleniye gorodskoy bol'nitsy No.7 g. Komsomol'ska-na-Amure.
(TONSILS--DISEASES) (CALCULI)

FOTIN, A.F., kand.med.nauk; YUDOV, N.N.; KOGAN, R.P.

Malignant nonspecific granulomas of the nose. Vest.otorin. (MIRA 15:1)
no.6:43-50 '61.

1. Iz kliniki bolezney ukha, nosa i gorla (dir. - deystvitel'nyy chlen AMN SSSR prof. B.S. Preobrazhenskiy) II Moskovskogo meditsinskogo instituta i 1-y moskovskoy klinicheskoy bol'nitsy imeni N.I. Pirogova.
(HODGKIN'S DISEASE) (NOSE--CANCER)

YUDOV, N. N.

Combined treatment of laryngeal cancer. Vest. otorin. no.2:50-53 '62. (MIRA 15:12)

1. Iz kliniki bolezney ukha, nosa i gorla (zav. - deystvitel'nyy chlen AMN SSSR prof. B. S. Preobrazhenskiy) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N. I. Pirogova.

(LARYNX—CANCER)

YUDOV, N. N., aspirant

Observations on the use of chemotherapeutic preparations in treating cancer of the larynx. Vest. otorin. no.3:57-63 '62. (MIRA 15:6)

1. Iz kliniki bolezney ukha, nosa i gorla (dir. - deystvitel'nyy chlen AMN SSSR zasluzhennyy deyatel' nauki prof. B. S. Preobrazhenskiy) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N. I. Pirogova.

(LARYNX--CANCER) (CHEMOTHERAPY)

FOTIN, A.V.; YUDOV, N.N.

Some characteristics of cancer of the laryngeal ventricle. Vestn. otorinolaring. 25 no.3:85-88 '63 (MIRA 17:1)

1. Iz kliniki bolezney ukha, nosa i gorla (dir. - deystvitel'nyy chlen AMN SSSR zasluzhennyy deyatel' nauki prof. B.S. Preobrachenskiy) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

NAZAROVA, G.F., kand.med.nauk; YUDOV, N.N., kand.med.nauk

Myoma from myoblasts with localization in the trachea. Vest. otorin. 25 no.5:99-101 S-O '63. (MIRA 17:4)

1. Iz Kliniki bolezney ukha, nosa i gorla (dir. - deystvitel'nyy chlen AMN SSSR prof. B.S.Preobrazhenskiy) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

MALYSHEV, A.; SHUSTOV, A.; YUDOV, V.

Organizing technical assistance for motor vehicles on highways. Avt. transp. 41 no.5:23-24 My '63. (MIRA 16:10)

(Motor vehicles—Maintenance and repair)

YUDOV, V.T.

Rendering technical assistance in interurban freight transportation. Trudy MIEI no.20:125-130 '63. (MIRA 17:4)

GOL'DIN, M.L., kand.tekhn.nauk; LINETSKIY, I.R., inzh.; SVERDEL', [illegible] inzh.; YUDOV, Yu.M., inzh.; TATARENKO, D.T., inzh.; TOMASHEVSKAYA, L.D., inzh.

Automatic control systems with a closed circuit for the grinding classification of iron ores. Gor.zhur. no.4:58-63 Ap '64. (MIRA 17:4)

1. Dnepropetrovskiy metallurgicheskiy zavod-vtuz (for Gol'din). 2. Bazovaya uzotopnaya laboratoriya Khar'kovskogo soveta narodnogo khozyaystva (for Linetskiy). 3. Yuzhnyy gornoobogatitel'nyy kombinat (for Sverdel', Udov, Tatarenko, Tomashevskaya).

S/270/63/000/001/003/024
A001/A101

AUTHOR: Yudov, Yu. N.

TITLE: On using the method of geodetic intersections in exploring routes

PERIODICAL: Referativnyy zhurnal, Geodeziya, no. 1, 1963, 17, abstract 1.52.109 ("Tr. Rostovsk. inzh.-stroit. in-ta", 1962, no. 20, 67 - 76)

TEXT: In geodetic operations for exploring the routes of automobile roads, linear measurements with a 20-m steel band under very difficult locality conditions (ravines, swamps, etc.) require a rather large amount of work. These operations are simplified considerably if the method of geodetic intersections proposed by A. I. Durnev is used for running 5 - 10 km long tying traverses and for traversing "variants". It is pointed out that lengths of sides of a traverse line in this case should be, on an average, not less than 300 m, and angles at auxiliary points not less than 18°. A field team should consist of 4 - 5 people and should be equipped with the same equipment and instruments as in running theodolite traverses. Recommendations are given as to performing field and office works. It is noted that while using the method of geodetic intersections

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S/270/63/000/001/003/024
A001/A101

On using the method of geodetic intersections in...

errors in angular measurements are discovered very soon, which is not the case in theodolite traverses where detecting such errors presents a difficult problem.

N. Yakovlev

[Abstracter's note: Complete translation]

Card 2/2

YUDOVICH, A. L.

Textile machinery

Performance of the combing machine GD-12 in production., Tekst. prom., no. 2, 1952

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

MALEVSKIY-MALEVICH, P.S.; YUDOVICH, A.L.

New G-4 combing machine. Tekst.prom. 19 no.10:33-39 O '59.
(MIRA 13:1)

(Combing machines)

KRAVCHENKO, I.V., kand.tekhn.nauk; YUDOVICH, B.E., inzh.

Using mercury porometry for determining the differential porosity of cement stone. Nauch. soob NIITSementa no.9:3[illegible].

(Porosity) (Cement)

L 05895-67 EWT(m)

ACC NR: AR6031251 (A) SOURCE CODE: UR/0081/66/000/011/M026/ M026

AUTHOR: Kravchenko, I. V.; Vlasova, M. T.; Yudovich, B. E.; Krykhtin, G. S.; Kirillov, Yu. D.; Turkot, I. M.; Shorokh, L. N.; Bugaychuk, A. V.

TITLE: The production of a quick-hardening cement at a Zdolbunov Cement-Slate Plant

15

SOURCE: Ref. zh. Khimiya, Part II, Abs. 11M192

REF SOURCE: Nauchn. soobshch. Gos. Vses. n.-i. in-t tsementn. prom-sti, no. 20(51), 1965, 36-41

TOPIC TAGS: cement, quick hardening cement/Zdolbunovskiy Cement Slate Plant

ABSTRACT: A technology was developed for manufacturing very quick-hardening cement with a hardening strength of 300 kg/cm^2 after one day, 450 kg/cm^2 after three days, and 700 kg/cm^2 after 28 days. At the Zdolbunov Cement-Slate Plant the base mixture is made from hard chalk, clay, and loams, containing a considerable quantity of large-crystal quartz; calcining was conducted in rotating furnaces, 118 and 170 m long. The physicochemical properties of the base components were studied, and the effect of the following factors on the cement strength was analyzed:

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L 05985-67

ACC NR: AR6031251

the type of fuel, the method of grinding the clinker, and the reactivity of the components. The reactivity of the base mixtures was found to be low, since 30--45% SiO_2 was present in the form of quartz particles larger than 15 μ. The cross-sectional view of the manufactured slurry showed large quartz crystals, $\leqslant 250\,\mu$. The best results with respect to cement strength and furnace productivity were obtained with clinkers containing 55—63% C_3S and 7—8% C_3A when n = 2.3—26, and p = 1.2—1.4. The required cement strength was obtained when the specific 3500--4000 cm^2/g, while the specific surface should be 5000 cm^2/g when calcining the clinker in a solid fuel. Mills, operating in open or closed cycles can be used: the temperature of the clinker being fed into the mill should not exceed 70—80° in the first case and 100° in the second case, and 100° at the outlet from the mill. [Translation of abstract]

SUB CODE: 07/

kh

Card 2/2

KORSHUNOV, Lev Petrovich. Prinimal uchastiye SEVAST'YANOV, N.B., kand. tekhn. nauk, dots.; KARPOVICH, V.A., inzh., retsenzent; YUDOVICH, B.S., kand. tekhn.nauk, retsenzent; POGODIN, L.L., nauchnyy red.; SMIRNOV, Yu.I., red.; CHISTYAKOVA, R.K., tekhn. red.

[Power systems of fishing trawlers]Energeticheskie ustanovki rybolovnykh traulerov. Leningrad, Sudpromgiz, 1963. 295 p. (MIRA 16:4)

(Fishing boats)

YUDOVICH, D.M.

Some economic indicators of the activity of rural hospitals.
Sov.zdrav. 17 no.12:28-30 D '58. (MIRA 12:2)

1. Iz Ukrainskogo nauchno-issledovatel'skogo byuro sanitarnoy statistiki Ministerstva zdravookhraneniya USSR.
(HOSPITAL ADMINISTRATION
budget planning for rural hosp. (Rus))

YUDOVICH, D.M. (Kiyev)

Causes of the disproportionate utilization of hospital beds. Sov. zdrav. 19 no.1:15-17 '60. (MIRA 13:4)

1. Iz Ukrainskogo nauchno-issledovatel'skogo byuro sanitarnoy statistiki.
(UKRAINE--HOSPITALS--ADMINISTRATION)

YUDOVICH, D.M. (Kiyev)

Studies on morbidity with temporary disability in the medical and sanitary department of the I.V.Stalin Factory. Sov.zdrav. 19 no.10: 65-67 '60. (MIRA 14:1)

1. Iz otdela organizatsii zdravookhraneniya Ukrainskogo nauchno-issledovatel'skogo instituta kommunal'noy gigiyeny.
(STALINO--INDUSTRIAL MIDICINE)

YUDOVICH, E.

Hotels are built slowly in Rostov-on-Don. Zhil.-kom.khoz. 12 no.11:29 N '62. (MIRA 15:11)

1. Neshtatnyy korrespondent zhurnala "Zhilishchno-kommunal'noye khozyaystvo".
(Rostov-on-Don--Hotels, taverns, etc.)

KIVIMYAGI, E.A.; YUDOVICH, E.A.

Amazine treatment of patients with schizophrenia suffering from pulmonary tuberculosis. Zhur.nevr.i psikh. 61 no.2:247-250 '61.
(MIRA 14:6)

1. Ryazanskaya psikhonevrologicheskaya bol'nitsa (glavnyy vrach V.V.TSarichenko, vypolnena pod rukovodstvom prof. A.K.Strelyukhina).
(TUBERCULOSIS) (SCHIZOPHRENIA)
(CHLORPROMAZINE)

YUDOVICH, E.Z., kand.tekhn.nauk; VLASOV, S.N., inzh.

The plant method of waterproofing blocks for tunnel lining. Transp. stroi. 13 no.6:31-33 Je '63. (MIRA 16:9)
(Waterproofing) (Reinforced concrete--Corrosion)

High-strength concrete from especially quick-[illegible]

LURIYA, Aleksandr Romanovich; YUDOVICH, Faina Yakovlevna; ZAOIK, L.V., redaktor; PETROVA, M.D., tekhnicheskiy redaktor.

[Speech and the development of psychological processes in the child; experimental research] Rech' i razvitie psikhicheskikh protsessov u rebenka; eksperimental'noe issledovanie. Moskva, Izd-vo Akademii pedagog. nauk RSFSR, 1956. 92 p. (MLRA 9:5)
(CHILD STUDY) (SPEECH)

PHASE I BOOK EXPLOITATION SOV/4149

Leningrad. Arkticheskiy i Antarkticheskiy nauchno-issledovatel'skiy institut

Problemy Arktiki; sbornik statey, vyp. 7 (Problems of the Arctic. Collection of Articles, No. 7) Leningrad, Izd-vo "Morskoy transport," 1959. 135 p. 500 copies printed. ERRATA SLIP

Additional Sponsoring Agency: USSR. Ministerstvo morskogo flota.

Resp. Ed.: V.V. Frolov. Editorial Board: L.L. Balakshin, A.A. Girs, P.A. Gordiyenko (Deputy Resp. Ed.), I.M. Dolgin, L.G. Kaplinskaya, A.A. Kirillov, Ye.S. Korotkevich, V.V. Lavrov, I.V. Maksimov, A.I. Ol', I.I. Pozayak, and B.V. Poliscov; Tech: L.P. Drozhzhina.

PURPOSE: The publication is intended for geographers, oceanographers, and particularly for all those interested in the studies of Arctic and Antarctic regions.

COVERAGE: This collection of 19 articles is the seventh of a series of publications dealing with problems of the Arctic and Antarctic. The articles deal mainly with the characteristics of water in the Barents Sea, hydrological conditions in the estuaries of Siberian rivers, types of atmospheric circulation in the Arctic, distribution of the hydrological stations in the Soviet Arctic, magnetic storms and their effect on radio communications. Included is brief information on Soviet meteorological and oceanographical expeditions. References accompany most of the articles. No personalities are mentioned.

TABLE OF CONTENTS:

YUDOVICH, L. A., BENKOVA, N. P., ~~[illegible]~~

"Daily Variations of Blackout Appearances. ((I-2-5))

report submitted for the Intl. Conf. on Cosmic Rays and Earth Storm (IUPAP)
Kyoto, Japan 4-15 Sept. 1961.

S/203/61/001/005/014/028
A006/A101

AUTHORS: Ben'kova, N. P., Yudovich, L. A.

TITLE: Diurnal variations in the occurrence of blackouts according to data of the IGY

PERIODICAL: Geomagnetizm i aeronomiya, v. 1, no. 5, 1961, 725 - 729

TEXT: The authors investigated the distribution of blackouts from data of 41 ionospheric stations on the northern hemisphere. The maximum of blackout recurrence was determined for each station during the winter, summer and equinoxes of the IGY. To reveal general regularities of blackout maxima isochrone systems were plotted and maximum recurrence was registered from data of the IGY. In the geomagnetic coordinates the isochrones of maximum recurrence for all seasons were ovals, whose shape was controlled by the zone of aurora polaris. When approaching the pole, the time of the maximum is shifted from the night to the day hours. In polar coordinates (local geomagnetic time serves as azimuth and the reduced geomagnetic latitude as a radius) the dependence of the time of blackout recurrence maximum on the reduced geomagnetic latitude has a spiral shape. A comparison with analogous spiralshaped distributions of magnetic activity during corresponding

Card 1/2

seasons within the same period of time shows, that the maximum of magnetic activity on latitude $\varphi' = 60^{\circ}$ is by 2 - 3 hours in advance of the maximum of blackout recurrence. With higher latitudes the delay of blackouts in respect to magnetic activity decreases. The results obtained by the present study are different from previous data; this is possibly due to the fact that magnetic and ionospheric observations from different periods had been compared. There are 4 figures, 1 table and 9 references: 5 Soviet-bloc and 4 non-Soviet-bloc.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i resprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere and Propagation of Radiowave, AS USSR)

SUBMITTED: July 7, 1961

3.9110

S/203/62/002/006/011/020
A160/A101

AUTHOR: Yudovich, L. A.

TITLE: The magnetic activity on the geomagnetic poles during the IGY

PERIODICAL: Geomagnetizm i aeronomiya, v. 2, no. 6, 1962, 1113 - 1121

TEXT: The author investigates the magnetic disturbances in the northern and southern geomagnetic-pole districts for one and the same time interval. The investigation is based on observation data of the Vostok and Tula stations, gathered from January to October 1958. At the Tula station, the hourly values of the Q-index of the magnetic activity were taken from a table with 15-minute Q-indexes by a method described elsewhere. The mentioned tables were obtained from МЦД Б 2 (MTsD B2). At the Vostok station, the hourly Q-indexes were taken directly from a magnetogram kept at MTsD B2. Since the regular observations at the Vostok station started in January 1958, the present article analyzes the data of the variational observations carried out at the Vostok and Tula stations from January to October 1958. Figure 1 shows the diurnal variations of the intensity of magnetic perturbations in relation to the universal

Card 1/3

The magnetic activity on the...

time at the Vostok station (arrow - the moment of the local noon): a - summer (January, February), б (b) - equinox (March, April, September, October), в (v) - winter (May, June, July, August). Figure 2 presents the diurnal variations of the magnetic activity (universal time) by the hourly Q-index according to seasons (a - summer, b - equinox, v - winter). On Figure 1 and Figure 2 the diurnal variation of the magnetic activity was determined by measuring the intensity of the magnetic disturbances. The distribution of the activity indexes at the Vostok and Tula stations for each hour of the day is shown in a table. During the months of summer solstice, there are practically no quite magnetic-field periods (Q = 0.1). A slightly disturbed magnetic field (Q= 2) appears most frequently during night hours. A strongly disturbed magnetic field was mainly observed at midday hours of local time. The seasonal changes in the northern and southern polar caps take place in an opposite phase. The level of the magnetic activity is higher at the circumpolar region of the hemisphere which is illuminated by the Sun. The summer maximum of the magnetic disturbance is explained by the fact that, during summer time, the corpuscular radiation is captured at higher geomagnetic latitudes than in winter time. There are 5 figures and 1 table.

Card 2/3

The magnetic activity on the...

S/203/62/002/006/011/020
A160/A101

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation, AS USSR)

SUBMITTED: May 10, 1962

Card 3/3

YUDOVICH, L.A.

Magnetic activity in the geomagnetic poles during the IGY .
Geomag.i aer. 2 no.6:1113-1121 N-D '62. (MIRA 16:1)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

(Magnetism, Terrestrial)

YUDOVICH, L.A.

Magnetic activity at conjugate points. Geomag. i aer. 3 no.4: 723-727 Jl-Ag '63. (MIRA 16:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

YUDOVICH, L.A.

Time-dependent regularities in the appearance of anomalous ionization in the F2 layer at high latitudes. Geomag. i aer. 3 no.6: 1048-1052 N-D '63. (MIRA 16:12)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

YUDOVICH, L.A.

Effect of universal and local time on the diurnal variation of magnetic activity. Geomag. i aer. 3 no.6:1138-1139 N-D '63. (MIRA 16:12)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

YUDOVICH, L.A.

Cyclic variations in the anomalous ionization of the F2-layer. Geomag. i aer. 4 no.2:408-409 Mr-Ap '64. (MIRA 17:4)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

POTAPOVA, N.I.; YUDOVICH, L.A.

Electron density distribution with normal and anomalous ionization in the subarctic region. Geomag. i aer. 4 no.5:850-860 S-O '64.
(MIRA 17:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

YUDOVICH, L.A.

Comparison of F-region ionization levels in the Arctic and Antarctic.
Geomag. i aer. 5 no.2:[illegible] Mr-Ap '65.

[illegible]

TITLE: Position of the equatorial boundary of the

TOPIC TAGS:

that

Card 1/2 UDC: 550.388.2:550.385

L 11811-65
ACC NR: AP6002760

planetary magnetic activity increases. In order
tion of the equatorial boundary of the region of
as a function of the intensity of planetary magne
chains of stations located along meridians in the
Southern Hemispheres were chosen. The presence
ionization was determined by analysis of f-charts
there was anomalous ionization when the regular
cal frequency for the F2 layer on quiet days for
interrupted. The boundary of the anomalous ioniz
est to the poles on magnetically quiet days. The
cident with the geomagnetic parallels, but with
tude accounting for deviation of the Earth's mag
dipole field.

SUB CODE: 04 / SUBM DATE: 13Apr65/ ORIG REF:
ATD PRESS: 4183

Card 2/2

ACC NR: AP7005102 SOURCE CODE: UR/0203/66/006/002/0389/0392

AUTHOR: Kiyanovskiy, M. P.; Yudovich, L. A.

ORG: Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation, AN SSSR (Institut zemnogo magnetizma, ionsfery i rasprostraneniya radiovoln AN SSSR)

TITLE: Relationship between f_0F2 at stations of the high latitudes of the northern hemisphere

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 2, 1966, 389-392

TOPIC TAGS: aurora, atmospheric ionization

ABSTRACT: An investigation was made of the simultaneity and synchroniza- of the change of the level of ionization at different stations of the high latitudes in the northern hemisphere, particularly the interrelationship between changes of f_0F2 of the stations of the oval zone of auroras ($65° \leq \phi \leq 78°$) and stations of the polar region ($\phi > 80°$). It is shown that the changes of the critical frequencies of anomalous ionization at the stations of the polar region are interrelated at all hours of the day. However, the correlation coefficient is relatively small. The changes of f_0F2 in the polar region are related to the changes of the level of anomalous ionization at the stations of the auroral zone only at those hours UT which coincide approximately with

Card 1/2

UDC: 550.388.2

0926 1618

ACC NR: AP7005102

the period of appearance of the maximum values f_0F2_a. The existence of a correlation between f_0F2 of stations of the polar region and the auroral zone can serve as an indirect argument in support of the hypothesis of a uniform nature of the anomalous ionization of the F2 layer of the entire region of latitudes $\phi > 60°$. The highest correlation coefficients are observed at those hours UT which correspond to the maximum values f_0F2_a in the diurnal changes at a compared pair of stations. Orig. art. has: 1 figure and 1 table. [JPRS: 38,677]

SUB CODE: 04 / SUBM DATE: 13Apr65 / ORIG REF: 002 / OTH REF: 001

Card 2/2

BORZHKOV, P.; YUDOVICH, M.; BONDAR', A.

Consolidated balance of a statistical report. Den. i kred. 16 no.11:70 N '58. (MIRA 11:12)
(Odessa--Banks and banking--Accounting)
(Machine accounting)

PRILUTSKIY, David Naftulovich; YUDOVICH, N., red.; BABICHEVA, V., tekhn.red.

[Bibliography; research in the field of refrigeration engineering, 1931-1958] Bibliograficheskii spravochnik; nauchnye issledovaniia v oblasti kholodil'noi tekhniki, 1931-1958 gg. Moskva, Gos.izd-vo torg.lit-ry, 1959. 119 p. (MIRA 13:2)
(Bibliography--Refrigeration and refrigerating machinery)

YUDOVICH, S. Z. and CHUB, G. F.

"Conditions for Obtaining a Good Surface in Rolling Springs," Stal', No.5, pp. 349-54, 1945

Evaluation B-60429

YUDOVICH, S.Z., inzhener; SOKOLOV, L.D., dotsent, kandidat tekhnicheskikh nauk.

Correlation between the strength of steel and its plastic deformation rate. Stal' 7 no.2:127-130 '47. (MLRA 9:1)

1.Kuznetskiy kombinat i Sibirskiy metallurgicheskiy institut.
(Rolling (Metalwork)) (Steel--Testing) (Deformations (Mechanics))

Dec 1947

of Weight and Method of Casting Quality
" S. Z. Yudovich, S. A. Yatsovskiy. Engi-
6 pp

No 12

PA 57726

le conducted at one of the plants of the
ombine. As result of data obtained,
tate that the weight of pig of quality
ld be increased to 6 tons or more. Also
possibility of using siphon pouring. With
n method it is possible to decrease the

57726
Dec 1947

(Contd)

f flaws and air holes with no loss of

57726

YU[illegible]OVICH, S. Z.

YUDOVICH, S. Z.

"Groove Designing of the Rollers of a Three-High Billet Mill". Stal', No. 4, 1948;
Engr., Kuznetsk Metallurgical Combine, Mill "Special Steel." -c1948-.

USSR/Engineering

Metallurgy, Ferrous
Ball Bearings

"Production of Ball Bearing steel [illegible]
and V. G. Spenskaya, Engineers [illegible]
Combine, "Spetsstal'" works, [illegible]

"Stal'" No [illegible]

Describes technological process for manufacture of ball bearing steel and methods for controlling steel, particularly examination of macrostructure. Suggests greater use of [illegible] steel without loss of quality [illegible]

YUDOVICH, S.Z.

CHEKMAREV, A.P.; YUDOVICH, S.Z., kandidat tekhnicheskikh nauk; TRAVININ, V.I.

Guide rounds on small-shape mills. Metallurg no.11:27-29 N '56. (MLRA 10:1)

1. Deystvitel'nyy chlen Akademii nauk USSR (for Chekmarev). 2. Nachal'nik prokatnoy laboratorii (for Yudovich). 3. Inzhener prokatnoy laboratorii zavoda "Dneprospetsstal'." (for Travinin).

(Rolling mills)

YUDOVICH, S.Z.

CHEKMAREV, A.P., akademik; YUDOVICH, S.Z., kandidat tekhnicheskikh nauk.

Using guides for rolling alloy steel. Stal' 16 no.7:609-614 Jl '56. (MLRA 9:9)

1. Akademiya nauk USSR (for Chekmarev) 2. Institut chernoy metallurgii Akademii nauk USSR i zavod "Dneprospetsstal'".
(Rolling mills)

YUDOVICH, S. Z.

133-10-16/26

AUTHOR: Yudovich, S. Z., Candidate of Technical Sciences and Kanev, M.S., Engineer

TITLE: Causes of the "Wrinkle" Formation on Round Sections Rolled in a Heavy Section Mill. (Prichiny Obrazovaniya Morshchin Na Kruglom Profile v Krupnosortnom Stane).

PERIODICAL: Stal', 1957, No.10, pp. 924-928 (USSR).

ABSTRACT: During the control of metal rolled on a mill 825 into rounds of 140 mm diameter and larger from steels ШХ15, ШХ15С , 12 - 20 ХН3А, 12-20Х2Н4А and others, surface defects in the form of wrinkles, cracks and hair cracks were observed. The characteristic distribution of defects and the appearance of wrinkles are shown in Figures 1 and 2 respectively. The calibration of roll pass used is shown in Figures 3 and 4. On an analysis of the control materials it was found that the proportion of surface defects increases with increasing diameter of the profile rolled. Investigation of various factors which could influence the formation of defects indicated that increasing temperature (within permissible limits) improves surface quality, water cooling of rolls and number of turnings (in the first stand) had no influence;

Card 1/4

Causes of the "Wrinkle" Formation on Round Sections (Cont.)

change in the design of 4 and 5 roll passes (Fig. 5) improved the surface quality, the presence of scale, particularly on rolling on convex passes (first stand) had a negative influence. Rolling in scale is shown in Figure 6. The callibration of the second stand was found to have a substantial influence on the surface quality. For this reason a new callibration of the second stand was developed by V. P. Sapronov, Ing., under the direction of M. I. Lobarev, Ing., (Fig. 8), namely two passes oval and round were replaced by 4 passes: romb - square - oval - round. On rolling with the new callibration the proportion of defects (wrinkles) decreased from the previous 1.9% to 0.6%. In order to check the influence of the deformation process on the formation of surface defects, an ingot with cast in rods (Fig. 9) to identify an individual ingot face (a_1 a_4) was rolled. After passing the fifth pass of the first stand, templets 400 mm long were taken, specimens from the finished product (rounds 150 mm) were also taken. It was found that: a) during rolling of square profiles, in the middle of the face the flow of metal in vertical and horizontal directions is approximately equal; on the face nearer to corners the flow of metal

Card 2/4

Causes of the "Wrinkle" Formation on Round Sections (Cont.)

is mainly utilised for spread; b) on rolling square in an oval pass, the flow of metal towards the sides is particularly pronounced in the narrowing parts of the oval: rods of a_1 and a_3 faces obtained oval shape, little changes during rolling of these faces in the round pass, despite that in this direction (in the apexes of the pass) the deformation was at a maximum. It is concluded that surface defects in the form of cracks, hair cracks but mainly wrinkles can be of a metallurgical and rolling origin. Surface defects of a rolling origin as a rule are regularly situated in certain places of the finished product. The basic causes of the formation of these defects are: a) scale formed during the heating of metal which is rolled into surface wrinkles and not only prevents their leveling down in subsequent passes but penetrates deeper into the metal; b) callibration of roll passes from which the cleanliness of the finished product mainly depends.

Card 3/4 There are 9 figures.

ASSOCIATION: Dneprospetsstal' Works. (Zavod Dneprospetsstal')

133-10-16/26

Causes of the "Wrinkle" Formation on Round Sections Rolled (Cont.)

AVAILABLE: Library of Congress

Card 4/4

Yudovich, S.Z.

AUTHOR: YUDOVICH,S.Z., cand.techn. PA - 2382

TITLE: The Use of Protective Coatings for Minimizing Metal Decarbonization. (Primeneniye zashchitnykh pokrytiy dlya umen'sheniya obezuglerozhivaniya metalla, Russian).

PERIODICAL: Stal', 1957, Vol 17, Nr 1, pp 69 - 71 (U.S.S.R.)

Received: 5 / 1957 Reviewed: 5 / 1957

ABSTRACT: In order to decrease the deficit caused by not adhering to the tolerance on the occasion of decarbonizing the billet stay in the heating furnaces and in the various furnace zones, the heating temperature of the metal, the composition of furnace temperature, and the depth of the decarbonized layer in the billet before heating are investigated. According to results obtained from this investigations a new technology of steel production was introduced which, although decreasing waste considerably, was not able to prevent it entirely. From the additionally developed method using several kinds of protective coatings the cases in which sodium silicate coatings were used, showed positive results and were able to reduce waste nearly to nil. The experimental method, the behavior of the sodium silicate coating on the occasion of heating, the influence exercised by the protective coating on the intensity of decarbonization at difference temperatures, and the influence exercised by protective coatings on the forming of scale is described. The application of the pro-

Card 1/2

The Use of Protecting Coatings for Minimizing Metal Decarbonization

tective coating before heating by means of sodium silicate reduces the intensity of decarbonization for all steels and promotes a more even distribution of decarbonization according to the diameter as in the case of metals without coating. Coating, however, does not fully eliminate the decarbonizing process and therefore cannot prevent decarbonization on the occasion of a long stay of the metal in the furnace. The application of protective coatings produces the greatest effect in the case of chromium steels. After introduction of the method of protective coatings into industry, the amount of waste with respect to decarbonization was reduced by about the 10-fold.

ASSOCIATION: "Dneprospetsstal'" Plant.
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress.

Card 2/2

SOV/137-58-9-19009

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 124 (USSR)

AUTHORS: Starodubov, K.F., Tregubenko, A.F., Yudovich, S.Z., Kolesnik, B.P., Lobarev, M.I.

TITLE: Combatting Decarburization by Induction Heating of Alloy-steel Billets Before Rolling (Primeneniye induktsionnogo nagreva zagotovok legirovannoy stali pered prokatkoy v tselyakh bor'by s obezuglerozhivaniyem)

PERIODICAL: V sb. Metallovedeniye i term. obrabotka. Moscow, Metallurgizdat, 1958, pp 39-49

ABSTRACT: A description is offered of experiments in induction heating in advance of rolling without decarburization of the billets (105x105x1000 mm) made of 60S2A, ShKh15 and U12A steels. It is established that two-frequency heating (50 cps up to the Curie magnetic-transformation point and then 500 cps) is optimal. Because the plant lacked a 500-cycle motor-generator set, induction heating was performed only at 50 cps, the current being taken from a 15,000-kva transformer. The design of the inductor is described. The drawings show the changes in electrical parameters and temperature in accordance with

Card 1/2

Combatting Decarburization by Induction Heating of Alloy-steel (cont.)

heating time. The time required to heat the billet to 1080°C for rolling was 170 seconds in the case of 60S2A; 250 seconds were required to heat ShKh15 steel to 1150°. Under these conditions, the temperature drop across the section of the billet came to 200 and 120°, respectively, with 188 and 282 kwh/t of electrical energy consumed. Metallographic investigation showed decarburization and oxidation on the surface of the billet to be lacking. The structure of the ShKh15 steel did not change, but grain growth occurred in the 60S2A steel (by 2 or 3 points). A design is being developed for industrial application of induction heating under which the billets will be heated to 700-800° in gas furnaces and the rest of the way by 2500-cycle high-frequency current.

F.U.

1. Induction generators--Design 2. Induction generators--Performance
3. Steel--Induction heating

Card 2/2

YUDOVICH, S.Z.; TRAVININ, V.I.

Measuring forces occurring on rolls of a 450 mill stand during the rolling of certain brands of steels. Trudy Zapor. mashinostroi. inst. 4:93-99 '59. (MIRA 17:1)

S/148/61/000/006/011/013
E073/E435

AUTHORS: Tovpenets, Ye.S. and Yudovich, S.Z.

TITLE: On the formation of flakes in steel during the process of investigation of the steel for flakes

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, 1961, No.6, pp.134-138

TEXT: Several authors pointed out that flakes may form in steel during the process of investigation for flakes and as a result of that perfectly good metal, which has a high sensitivity to the formation of flakes, may be scrapped. Therefore, present methods of testing steel for flakes have to be changed and for this purpose additional experiments are necessary. The here described experiments were carried out with the steels 18ХНВА (18KhNVA) and ШХ15 (ShKh15). Specimens were cut, after the termination of the rolling, from blanks of the following cross-sections: 152 x 152 mm, 150 x 150 mm, 125 x 125 mm and 150 mm dia., they were notched to half the cross-section in the hot state and air and water quenched to 20°C. Half of the specimens of each batch were fractured by means of a 1/2-ton hammer the second day after

Card 1/4

cooling and the most characteristic fractures were photographed. The specimens which had not fractured were notched with an acetylene flame and again fractured. Two to three days later the second half of the specimens was subjected to the following heat treatment: high temperature tempering at 700°C for 4 hours followed by slow cooling in the furnace to 400 - 600°C and then in air. The total duration of the tempering was 16 to 20 hours. The specimens which were previously tested under the hammer were subjected to the same tempering conditions so as to facilitate cutting of discs for flake investigations. 25 mm discs were cut from the middle part of the specimen and from the individual discs metallographic specimens were cut for determining the microstructure, hardness and microhardness. The results have shown that all the specimens from certain heats of both steels were highly insensitive to flake formation. Even after water quenching and fracturing under the hammer they showed cracks but not flakes. The cause of differing sensitivities to flake formation is attributed to differing hydrogen contents of the steel. Specimens of both steels from other heats had a higher

On the formation of flakes ...

sensitivity to the conditions of cooling after rolling: for one steel, water quenched specimens showed large flakes and quenching cracks, whilst air quenched specimens only showed fine flakes and specimens which were tempered at 700°C after water quenching showed quenching cracks but no flakes. The specimens of the other steel from a specific heat showed flakes regardless of the heat treatment conditions. The following conclusions are arrived at:
1. Formation of flakes in steel under the influence of mechanical effects is only possible if it contains microvolumes of increased brittleness (martensite).
2. Mechanical effects during taking and treatment of the specimens increases the possibility of flake formation.
3. For steels that are sensitive to flake formation, the method of taking specimens for flake investigations has to be changed so as to reduce the mechanical effects on the metal.
4. If flakes detected in the specimens have not otherwise shown up, the metal should be additionally heat treated (high temperature tempering or annealing) so as to eliminate the foci of increased brittleness of the metal.

Card 3/4

On the formation of flakes ... S/148/61/000/006/011/013
E073/E435

B.I.Golubchik and M.A.Klyachkina participated in the experiments.
There are 3 figures and 5 Soviet references.

ASSOCIATIONS: Donetskiy industrial'nyy institut i
Zaporozhskiy mashinostroitel'nyy institut
(Donets Industrial Institute and
Zaporozhe Engineering Institute)

SUBMITTED: July 15, 1960

Card 4/4

YUDOVICH, Simon Zakharovich; ROGOZA, Georgiy Davidovich; BORODAVKIN, M.L., red. izd-va; KHITAROVA, N.R., red. izd-va; ATTOPOVICH, M.K., tekhn. red.

[Technical control in metallurgy] Tekhnicheskii kontrol' metallurgicheskogo proizvodstva. Moskva, Metallurgizdat, 1962. 342 p. (MIRA 15:7)

(Iron and steel plants—Quality control)

YUDOVICH, S.Z.; ROGOZA, G.D.; TSIVIRKO, D.Ye.

"Metal for sheet-metal work" by V.P.Severdenko, S.A.Pasechnyi. Reviewed by S.Z.IUdovich, G.D.Rogoza, D.E.TSivirko. Kuz.-shtam. proizv. 4 no.10:47 O '62. (MIRA 15:12)
(Sheet steel)
(Severdenko, V.P.) (Pasechnyi, S.A.)

AIEKSEYENKO, M.F.; BANAS, P.S.; BOBKOV, T.M.; NATAPOV, B.S.; RYABTSEV, S.I.; SKLYAROV, P.I.; FRANTSOV, V.P.; YUDOVICH, S.Z.; PRONIN, V.Ye.

DI-1 stainless steel. Stal' 23 no.2:159-162 F '63. (MIRA 16:2)
(Steel, Stainless)

NATAPOV, B.S.; SORDKO, L.N.; BARZIY, V.K.; FILONOV, V.A. [deceased]; GURSKIY, G.L.; IOFFE, M.M.; LETCHFORD, N.I.; YUDOVICH, S.Z.

Improving the stampability of nonaging O8IU sheet steel. Stal' 23 no.1:84-86 Ja '63. (MIRA 16:2)

1. Zaporozhskiy mashinostoritel'nyy institut, zavod "Zaporozhstal'" i Gor'kovskiy avtomobil'nyy zavod.
(Sheet steel) (Drawing (Metalwork))

TABLE 1

Chemical composition of melts A and B

Melt	C	Mn	Si	P	S	Cr	Ni	Cu
A	0.16	0.29	0.32	0.018	0.[illegible]	15.05	2.64	[illegible]
B	0.19	0.22	0.29	0.016	0.011	15.07	2.66	[illegible]

Card [illegible]