

GRABOVSKIY, L.K., inzh.; BASHILOV, G.N., inzh.; SOKOLOVSKIY, O.P., inzh.;
KRASNOSEL'SKIKH, S.N., inzh.; ANTONOV, P.A.; BYKOV, V.A., inzh.;
DANILOV, G.G., inzh.; GEL'FENBEYN, Ye.Yu., inzh.; PILIP, M.M.,
inzh.; MAKAROV, B.V., inzh.; RAGINSKIY, D.M., inzh.

Equipment of a working line of hot rolling mills. Sbor. st.
NIITIAZHMASha Uralmashzavoda no.6:70-96 '65.

(MIRA 18:11)

SOKOLOVSKIY, O. V., SHANGIN, N. M., ALEKSEYEV, F. A., GOLBEK, G. R., SEYFER, V. N.,
VASILYEVA, N. A., MAYDEBOR, V. N. (USSR)

"Tritium in Underground Water Studies."

report presented at the Conference on Radioisotopes in Metallurgy and Solid State
Physics, IAEA, Copenhagen, 6-17 Sept 1960.

SOKOLOVSKIY, P. [Sokolovs'kyi, P.]; SAVONYUK, M.

Let's speed up construction. Sil'.bud. 7 no.12:20
D '57. (MIRA 13:5)

1. Kolkhoz imeni Engel'sa, Ostrozhetskogo rayona, Rovenskoy
oblasti. (Ostrozhets District--Farm buildings)

SOKOLOVSKIY, P. (Kuybyshev); TURCHAN, N. (Gorlovka); LISNYAK, N.;
GAL', I. (Lutsk)

Lectures on fire prevention. Pozh.delo 4 no.8:11 Ag '58.
(Fire prevention--Study and teaching) (MIRA 11:9)

SOV/136-52-11-4/21

AUTHOR: ~~Sokolovskiy, P.A.~~
Belov, Yu. I.

TITLE: Electrothermic Production of Zinc Dust at the Belovo Zinc Works (Elektrotermicheskoye poluchenije tsinkovoy pyli na Belovskom tsinkovom zavode)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 11, pp 20-25 (USSR)

ABSTRACT: In view of the disadvantages of existing methods at the Belovo Zinc Works for zinc and zinc-dust production an electrothermic process has been investigated. This was done jointly by the works and the Gintsvetmet Institute in 1956-1957 with an experimental 150 kW installation and July 1957 a semi-production 1000 kVA unit has been in operation. This has an oil-fired rotary kiln 11 m long and 1.6 m external diameter for calcination at a maximum temperature of 850-900°C. From the kiln the hot charge goes via a lined bunker into the electric furnace. This is 5.4 m long and 0.6 wide internally, with a chroma-magnesite brick bottom and magnesite in melt-contacted zones. Current is supplied from two three-phase transformers type ETM 200/10 with a maximum of

Card 1/3

SOV/136-08-01-4/21

Electrothermic Production of Zinc Dust at the Belovo Zinc Works

7400 amperes per phase. Eight charging hoppers are provided on the furnace as is a condenser for liquid zinc and a condensing chamber for zinc dust. The gases after cleaning in a water-cooled chamber, cyclone and scrubber are ejected. The trapped material is screened on 0.2 - 0.3 mm screens, the undersize being exported as zinc dust, the oversize being melted to liquid zinc. The electric-furnace charge consisted of sinter (58-59% Zn, 0.7 - 0.9% Pb, 6-8% Fe, 1.5 - 2.5% Cu, 0.7 - 0.9% S, 0.1 - 0.2% Ca, 1.2% CaO, 1.0 - 1.5% MgO, 4-5% SiO₂, 1-2 g/tonne Au, 100-200 g/tonne Ag) with enough limestone (50-55% CaO, 3-5% SiO₂) to give a CaO: SiO₂ ratio in the slag of 1 and the theoretical amount of coke. 140 was found to be the optimal voltage giving a current of 3600 amperes, the daily productivity of the furnace being 14 tonnes of calcined charge (8 tonnes of zinc). The zinc content of the slag depended on the iron content (1.9% Zn with 7.0% Fe - 5.8% Zn with 12.8% Fe) and on the (CaO + MgO)/SiO₂ ratio. The copper and noble

CARD 2/3

SOV/136-58-11-4/21

Electrothermic Production of Zinc Dust at the Belovo Zinc Works

metals concentrated in the matte and alloy (about 2% copper loss in slag). The electrothermic process described required 5-7 kg of electrodes, 100 kg oil and 3600-3800 kWh per tonne of zinc dust, the production cost per tonne being 2800-2900 roubles. The condensation of zinc vapour into liquid metal has not been adopted, the activity of the dust is comparatively low, lining life is short and dust-condenser design is defective: these problems are being studied by the works with the Gintsvetmet Institute. There is 1 figure.

ASSOCIATION: Belovskiy Tsinkovyy Zavod (Belovo Zinc Works)

Card 3/3

SCKOLOVSKIY, P. I.; LESEVITSKIY, N. N.; BURNEVICH, A. M.

Iznos Tramvainih Relsov (Wear of Trolley Car Rails), Moscow-Leningrad, 1948.

SOKOLOVSKIY, P.I., kandidat tekhnicheskikh nauk.

Requirements of structural steel. Standartizatsiia no.1:37-39
Ja-F '54. (MLRA 7:2)

1. Tsentral'nyy nauchno-issledovatel'skiy institut promyshlennykh
sooruzheniy. (Steel, Strucutral)

SOKOLOVSKIY, P.I., kandidat tekhnicheskikh nauk; KOCHETOV, A.I., inzhener.

Evaluation of the mechanical properties of steel according to
acceptance tests. Standartizatsiia no.4: 48-52 J1-Ag '54.
(MIRA 8:2)

1. TsNII promyshlennykh sooruzheniy.
(Steel--Specifications)

Improved Bessemer steel for welded structures. A. Ya. Brodskii and P. I. Sokolevskii. *Siroiti. Prom.* 32, No. 8, 26-31(1934).—Mech. and welding properties of Al and Ti killed Bessemer steel with 0.11-0.18% C, 0.49-0.52 Mn, 0.18-0.20 Si, 0.032-0.038 S, 0.053-0.055 P were compared with an open-hearth steel carrying 0.19% C, 0.43-0.47 Mn, 0.03 max. Si, 0.019-0.020 S, 0.010-0.013 P. Killing practice used is not described. Bessemer steel is stronger but more brittle than the open-hearth stock and ages less than the latter after cold-working. Welded specimens showed a higher impact strength for Bessemer steel and a lower transition point. Data are presented graphically. J. D. Cat

M 21

SOKOLOVSKIY, P.I., kandidat tekhnicheskikh nauk; GLADSHTEYN, L.I., inzhener.

Determining the tendency of low-carbon steel to mechanical ageing.
Standartizatsiia no.6:41-45 N-D '55. (MLRA 9:2)
(Steel--Testing)

Sokolovskiy, P.I.

BRODSKIY, A.Ya.; KOSYREV, V.P.; SOKOLOVSKIY, P.I.

Corrugated concrete reinforcements made of low allow 2508 steel.
Strel. prom. 33 no.9:36-38 S '55. (MLRA 9:1)
(Reinforced concrete)

SOKOLOVSKIY, P.I., kandidat tekhnicheskikh nauk.

Requirements to be included in the All-Union State Standards for low-alloy steel. Standartizatsiia no.3:32-36 My-Je '56. (MLRA 9:9)

1. Sentral'nyy nauchno-issledovatel'skiy institut promyshlennykh sooruzheniy. (Steel alloys--Standards)

SOKOLOVSKIY, P.I., kandidat tekhnicheskikh nauk.

Response to S.E.Khanin's article "Fatigue process in metals." Stal' 16
no.8:741-742 Ag '56. (MLRA 9:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut promyshlennykh sooruzhe-
niy.

(Metals--Fatigue)

SOLOLOVSKIY, P.I

18 18
 Method of Testing Steel for Cold Bending. P. I. Sokolovskii and E. I. Gladsheln. (Zavodskaya Laboratoriya, 1956, 23, (3), 331-333). [In Russian]. The relation between test results in the cold-bending of steel round mandrels and tensile tests is discussed, and experiments in which the deformation of specimens was studied are described. The longitudinal distributions of plastic deformation in specimens of O.H. rimming steels bent round mandrels 5, 13, and 20 mm in diameter were determined and in further experiments crack formation was stimulated by preliminary deformation of 2 or 15%. Maximal values of local elongation and concentrated deformation at failure of the test-pieces are tabulated. A graph for choosing mandrel diameters for different test-piece thicknesses is presented.—S. K.

4
4E.2c

189

SOLOLOVSKIY, P. I.

18
 2
 1-4522

1. Selection of low-alloy steels for structural purposes.
 P. I. Sokolovskii. *Stroitel. Prom.* 35, No. 8, 43-4 (1968).
 Analysis and tensile properties of 24 proposed steels are
 given. They carry 0.10-0.2% C, 0.4-1.0 Si, 0.2-1.6 Mn,
 to some of which 0.2-0.9 Cr, 0.3-1.3 Ni, 0.15-0.8 Cu are
 added alone or in combination. They are intended to have
 33-5 kg./sq. mm. tensile strength, 16-20% min. elongation,
 and an impact strength of not less than 3 kg./sq. cm. at
 -40°. Welding and corrosion resistance properties are not
 described.
 J. D. Gat

SOV 125-58-3-7/15

AUTHORS: Brodskiy, A.Ya., Sokolovskiy, P.I. and Fridman, A.M.

TITLE: Spot Welding of a Reinforcement Framework with Heat Treatment of Cluster Joints Between the Electrodes of the Machine (Tochechnaya svarka armaturnykh karkasov s termicheskoy obrabotkoy uzlov mezhdu elektrodami mashiny)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 3, pp 50-56 (USSR)

ABSTRACT: Thus far, reinforcement frames for concrete structures were are-welded. Experience has shown that contact spot welding is cheaper and more efficient in the production of reinforcement frames without diagonal links. However, joining three or five periodical-profile "St 5"-steel bars into cluster joints by contact spot welding entails metal hardening at the joint, caused by fast heating and subsequent fast cooling. The article gives a detailed description of experiments carried out for the purpose of eliminating this hardening. Engineer V. Yakovleva took part in the experiments. The developed technology consists in subsequent heating of the joints to a definite temperature between the electrodes of the welding machine and in slow cooling. Details of technology are given in table 3. Chemical composition of the

Card 1/2

SOV 125-58-3-7/15

Spot Welding of a Reinforcement Framework with Heat Treatment of Cluster Joints Between the Electrodes of the Machine

periodic-profile steel used for the experiments is also given. The described method has been put to practical use in the reinforcement workshop of a Chelyabinsk construction project. Automatic heat treatment between machine electrodes requires modernization of the standard welding machines and welding transformers. There are 3 tables, 1 photo, 2 figures, 5 graphs, 2 sets of microphotos and 5 Soviet references.

ASSOCIATION: TsNIISK

SUBMITTED: September 25, 1956

1. Reinforcing steel--Spot welding
2. Spot welds--Effectiveness
3. Welded joints--Heat treatment

Card 2/2

SOV/32-24-10-26/70

AUTHORS: Gladshteyn, L. I., Sokolovskiy, P. I., Rudchenko, A. V.

TITLE: Investigation of the Mechanical Aging of Steel by the Method of Combining Real Expansion Diagrams (Issledovaniye mekhanicheskogo stareniya stali metodom sovmeshcheniya istinnykh diagramm rastyazheniya)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 10, pp 1236-1239 (USSR)

ABSTRACT: The present standard method of classifying the aging tendency of steel (GOST 5520-50) is based on measuring the resilience of the steel at room temperature (Refs 1,2) and does not make possible a quantitative classification. In the present method the expansion curve of the same steel obtained after cold hardening and aging is plotted on the expansion curve of the steel (in the initial state) plotted according to real values of the coordinates deformation - stress. This method makes possible differentiation between the hardening effect caused by aging and that caused by cold hardening. This method is practical in that no complicated samples are needed, and simple apparatus as, for instance, the testing machine **IM**, -4A can be used. The technique employed is described and a graph of the diagrams

Card 1/2

SOV/32-24-10-26/70

Investigation of the Mechanical Aging of Steel by the Method of Combining
Real Expansion Diagrams

obtained in testing the steel samples type Mst.3 (0,14% C, 0,44% Mn, 0,055% Si, 0,037% S and 0,031% P) is given. Also diagrams of the tests of steel samples of type Mst.3 hardened at 930° in oil as well as of those cooled in the furnace are given. It was found that the natural and the artificial aging of a cold hardened steel are of a different character. In contrast to the present ideas regarding the aging of carbon steels a quick cooling from the austenite state does not decrease the tendency to mechanical aging. There are 3 figures and 5 references, of which are Soviet.

ASSOCIATION: Institut "Proyektstal'konstruktsiya" i Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy ("Proyektstal'konstruktsiya" Institute and Central Office of the Scientific Research Institute for Building Constructions)

Card 2/2

GVOZDEV, A.A., prof., doktor tekhn.nauk; DMITRIYEV, S.A., kand.tekhn.nauk; MULIN, N.M., kand.tekhn.nauk; BALDIN, V.A., kand.tekhn.nauk; BRODSKIY, A.Ya., kand.tekhn.nauk; SOKOLOVSKIY, P.I., kand.tekhn.nauk; FRIDMAN, A.M., mladshiy nauchnyy sotrudnik. Prinimal uchastiye MADATYAN, S.A., mladshiy nauchnyy sotrudnik. KLIMOVA, G.D., red.izd-va; NAUMOVA, G.D., tekhn.red.

[Instructions for using hot-rolled ribbed 30KhG2S steel reinforcements in making prestressed reinforced-concrete construction elements] Ukazaniia po primeneniui gorlachekatanoi armatury periodicheskogo profil'ia iz stali marki 30KhG2S v predvaritel'no napriazhennykh zhelezobetonnykh konstrukttsiakh. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam. 1960. 21 p. (MIRA 14:1)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Nauchno-issledovatel'skiy institut betona i zhelezobetona (for Gvozdev, Dmitriyev, Mulin). 3. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Gvozdev). 4. Laboratoriya metallicheskih konstruktsiy Tsentral'nogo nauchno-issledovatel'skogo instituta stroitel'nykh konstruktsiy (for Baldin, Brodskiy, Sokolovskiy, Fridman). 5. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Baldin). 6. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu (for Madatyan).
(Prestressed concrete) (Reinforcing bars)

S/028/60/000/010/010/020
B013/B063

AUTHORS: Sokolovskiy, P. I., Samaryanova, A. M., Sabiyev, M. P.,
Timofeyev, D. I. ¹⁶

TITLE: Heat Treatment of Low Carbon Steel ¹⁸

PERIODICAL: Standartizatsiya, 1960, No. 10, pp. 41-44

TEXT: The experience gained in a number of metallurgical works in the heat treatment of rimming and semi-quiet steel of the type CT.3 (St.3) is described. These experiments as well as extensive scientific work were necessary for the elaboration of GOCT 9458-60 (GOST 9458-60). The properties of the steel plate of type St.3 subjected to heat treatment were studied by the TsNII chernoy metallurgii (Central Scientific Research Institute of Ferrous Metallurgy), TsNII stroitel'nykh konstruktsiy (TsNII for Structures) and the GPI Proyektstal'konstruktsiya at the Novo-Tagil'skiy zavod (Novo-Tagil'skiy Works). A strongly inhomogeneous structure was observed. Positive results were obtained with the heat treatment of semi-quiet steel of type St.3 made by the TsNII for structures at the zavod im Il'icha (Works imeni Il'ich): structure and properties were

Card 1/3

Heat Treatment of Low Carbon Steel

S/028/60/000/010/010/020
B013/B063

homogeneous at different points of the plates. At present, the semi-quiet steel of the types St. 3 and St. 5^{is} studied at the Ukrainskiy institut metallov (Ukrainian Metal Institute) in collaboration with the TsNII for structures. Specimens of semi-quiet steel of type St. 3 will be subjected to heat treatment at the Alchevskiy zavod (Alchevskiy Works). At the ¹⁸ Novo-Tagil'skiy works Martin steel sheets produced from rimming steel of type St. 3 with 0.14 and 0.19% carbon content, and at the works imeni Il'ich, steel sheet produced from rimming and semi-quiet steel of the type St. 3 with 0.14 and 0.21% carbon content as well as H- and U-iron No. 30 produced from rimming St. 3 steel were subjected to heat treatment. Better results were obtained in the works mentioned last. On the basis of the experiments conducted at various works the main parameters for the conditions of heat treatment could be determined. The studies of mechanical properties of steel subjected to heat treatment (Table) show that on tempering carbonsteel plates of type St. 3 sufficient homogeneity is obtained. Thicker plates have more uniform mechanical properties with good plastic properties being obtained at high strength. In spite of the good results obtained heat treatment is still imperfect since the values of the relative increase in length are frequently below the standard

Card 2/3

Heat Treatment of Low Carbon Steel

S/028/60/000/010/010/020
B013/B063

[OCT 9458-60 (GOST 9458-60). Hence, further experimental data are necessary. Cold brittleness and mechanical aging of carbon steel which were observed in an experimental series are lower than in low-alloy steels. In the case of thin cuts the St. 3 steel subjected to heat treatment may replace low-alloy steels with a yield point of 30 kp/mm². The use of carbonsteel subjected to heat treatment proved to be favorable also from the economic point of view. The experience gained at the Alchevskiy works in the heat treatment of steel boiler plates showed that the strength of carbon steel subjected to heat treatment attains the strength of some hot-rolled low-alloy steels. On the basis of a large number of experimental data collected in the works the GOST 9458-60 standards for the mechanical properties must be specified more exactly. There is 1 table. ✓

Card 3/3

SOKOLOVSKIY, P.I., kand.tekhn.nauk; TUBIN, S.M., kand.tekhn.nauk

Low-alloyed 15GS structural steel containing no nickel. Prom. stroi.
38 no.10:32-34 '60. (MIRA 13:9)

1. TSentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh
konstruktsii Akademii stroitel'stva i arkhitektury SSSR.
(Steel, Structural)

S/028/61/000/004/003/007
B103/B206

AUTHORS: Prokhorov, A. V., Sokolovskiy, P. I.
TITLE: Elimination of copper from 10Г2СА (10G2SD) steel
PERIODICAL: Standartizatsiya, no. 4, 1961, 28-31

TEXT: The authors describe their experiments to eliminate copper from low-alloy carbon steel of the type 10Г2СА (МК) (10G2SD (МК)) produced at the zavod im. Il'icha (Plant imeni Il'ich). This steel with reduced copper content is now to be called 10Г2С (10G2S). According to ГОСТ 5058-57 (GOST 5058-57), 10G2SD contains in %: C maximum 0.12, Si 0.8-1.1, Mn 1.3-1.65, Cu 0.15-0.30. At the TsNIIChM (Central Scientific Research Institute of Ferrous Metallurgy) it was proved that such a small copper addition does not increase corrosion resistance of the steel. The possibility was thus given to eliminate this material, of which there is a shortage. Experimental lots of pipes and sheets (12, 20, 30, and 40 mm thick) were produced at the plant, and a change of the tentative technical conditions (for pipes БТУ 0С-06-58, ВТУ 0С-06-58) was approved. The Cu content in type 10G2S amounts therefore to a maximum of 0.3%, and the Si content to a maxi-
Card 1/3

Elimination of ...

S/028/61/000/004/003/007
B103/B206

mum of 1.2%. The steel sheets mentioned were tested at the TsNII stroitel'-nykh konstruktsiy (Central Scientific Research Institute of Structural Parts) mainly in hot-rolled state, the rest in tempered state (normalized, hardened, and drawn). The results were statistically evaluated, and distribution curves for the content of most important elements and those for the chemical properties under tension, as well as the resilience values at -40°C, were determined. The statistical analysis showed that the mean values of mechanical characteristics of types 10G2SD and 10G2S differ. In order to determine the sensitivity of type 10G2S to stress concentration during vibration loads, and to clarify the effect of lack of copper, samples were tested with and without stress concentrators. The authors used the methods of the NII mostov Leningradskogo instituta inzhenerov zheleznodorozhnogo transporta (Scientific Research Institute of Bridges of the Leningrad Institute of Railroad Transport Engineers). The authors summarize their investigation results as follows: The steel of type 10G2S (rolled product) corresponds to the requirements of GOST 5058-57 for the type 10G2SD and is superior in many ways to other low-alloy steel types: 15XCHA (15KhSND), 14I*2 (14G2), 15ГC (15GS) used in industry. Owing to its low carbon content, this steel shows good weldability, and its strength values and plasticity

Card 2/3

Elimination of ...

S/028/61/000/004/003/007
B103/B206

are higher than those of other low-alloy types. Substantial metal savings can thus be achieved in construction. 10G2S is less prone to cold-brittleness and less sensitive to aging than most low-alloy steels. On the basis of their data, the authors recommend elimination of copper from the type 10G2SD, and inclusion of the type 10G2S in GOST 5058-57. Its chemical composition in % is as follows: C - 0.12, Mn - 1.3-1.65, Si - 0.8-1.2, Cu, Cr, and Ni < 0.3, S and P - 0.04. Table 4 contains the mechanical properties. The Plant imeni Il'ich will thus save 426.6 t of copper annually in pipe production. This saving will be still higher when this steel is widely used in constructions.. There are 3 figures and 4 tables.

Legend to Table 4: (1) Thickness of rolled goods, (2) mechanical properties under tension, (3) temporary resistance, (4) yield point, (5) specific elongation, (6) minimum, (7) resilience at -40°C.

Толщина проката, мм	2 Механические свойства при растяжении			Ударная вязкость при температуре -40°C, кгс.м/см²
	Временное сопротивление, кгс/мм² 3	Предел текучести, кгс/мм² 4	Относительное удлинение, % 5	
	6 не менее			7
4-7	52	38	18	-
8-32	50	35	18	3
33-40	48	34	18	-

Card 3/3

SOKOLOVSKIY, P.I., kand.tekhn.nauk; BRODSKAYA, A.N., inzh.

Investigating the properties of nickel-free 14G2, 14 KhGS,
15GS, 14G and 19G low-alloy steel. Trudy TSNIISK no.4:111-
133 '61. (MIRA 15:2)

(Steel alloys—Testing)

SOKOLOVSKIY, P.I.; MOLOTKOV, V.A.; KATS, T.M.

Heat-treated rolled sections of low-carbon steel. Standartizatsiia
25 no. 5:36-38 My '61. (MIRA 14:5)
(Steel, Structural--Testing)

BELIYAYEV, B.I.; BALDIN, V.A.; SOKOLOVSKIY, P.I.

High-strength low-alloy steel for building elements. Prom.
stroi. 39 no.5:26-29 '61. (MIRA 14:7)
(Steel, Structural)

S/137/62/000/011/024/045
A052/A101

AUTHORS: Kobrin, M. M., Sokolovskiy, P. I.

TITLE: Characteristics of steel rupture under cyclic loads in connection with the anisotropy of its structure

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 11, 1962, 46, abstract 111290 (In collection: "Tsiklich. prochnost' metallov", Moscow, AN SSSR, 1962, 94 - 109)

TEXT: Various kinds of mechanical tests (torsion and tension of a "laminated" sample) are considered from the viewpoint of their suitability for evaluating the tendency to cleavage of a wide row of products and materials of anisotropic structure. The investigations were carried out on special "laminated" samples prepared of sheet material 12 mm thick [14 Г2, 15 ГС (14Г2, 15GS) steels] and of a rod 25 mm in diameter [CT 3 (St.3)]. Torsion tests were carried out on a crankshaft-type fatigue machine (loading frequency = 1,400 cycle/min.). It is pointed out that cyclic torsion is a more sensitive method of revealing the tendency to cleavage than static torsion. Under conditions of cyclic torsion,

Card 1/2

Characteristics of steel rupture under...

S/137/52/000/011/024/045
A052/A101

the characteristics of the cycle (alternation, assymetry) are not so important as its loading frequency to produce a cleavage-type fracture. To investigate the tendency to cleavage at tension a new "laminated" type of a sample (the cutting scheme and the form of the sample are given) is proposed. The mentioned samples were tested under asymmetric one-sign cycle on a modernized inertia-type machine; loading frequency = 3,000 cycle/min. The cleavage test reveals a new property of an anisotropic material which cannot be detected by the usual method of anisotropy evaluation by comparing properties of longitudinal and lateral samples. The results of an investigation of rod steel have shown that all laws, established for sheet steel, hold true for it; the rolling resistance in the direction perpendicular to the planes of cleavage is lower than in any direction along these planes. Photos of fractures are presented of the samples with a different orientation in relation to the direction of rolling, and characteristics of cyclic rupture of sheet and rod steel discovered in the process of fatigue tests of "laminated" samples are discussed. ✓

Z. Fridman

[Abstracter's note: Complete translation]

Card 2/2

34916

S/028/62/000/003/003/005
D217/D302

18.11p0

AUTHORS: Sokolovskiy, P.I. and Yakovleva, V.S.

TITLE: Increasing the strength of reinforcing steel by means of heat treatment

PERIODICAL: Standartizatsiya, no. 3, 1962, 24-29

TEXT: The present investigation, carried out at the Makeyevskiy metal-lurgicheskiy zavod (Makeyevsk Metallurgical Plant) was undertaken in order to obtain information on the properties of steels CT.4K7, CT.4, 35T C and 65T (St.4kp, St.4, 35GS and 65G). P.M. Pavlenko and D.S. Alferova participated in the experimental part of the work. The aim was to produce, by heat treatment, mechanical properties which would satisfy the requirements of a project concerned with the standardization of 'Heat treated steel for the reinforcement of steel concrete structures. Technical requirements'. In the standard specification 5781-61 for 'Hot rolled steel for reinforcement of steel concrete structures', the classification of reinforcing steels is based on their mechanical properties: the hot

Card 1/3

X

Increasing the strength of ...

S/028/62/000/003/003/005
D217/D302

rolled reinforcing steels are divided into four classes (A-I, A-II, A-III and A-IV). For thermally strengthened steels with better properties, the classes A_T-V, A_T-VI, A_T-VII and A_T-VIII have been instituted. The mechanical properties corresponding to the technical requirements exceed those of hot rolled steels used for steel concrete structures by factors of 1.5-2.5. The three low alloy steels 35GS, 65G and 30KhG2S were used to study the influence of heat treatment on mechanical properties, as well as for the choice of types of steel in various classes of standardization projects. In addition, the possibilities of treating the carbon steel St.4 to give it mechanical properties equal to those of hot rolled steel of the A-III class, and of welding this steel without softening it, were investigated. It was found that heat treated steels are considerably stronger than the same steels when hot rolled. Preliminary investigation of the weldability of thermally strengthened carbon steel showed a decrease of temporary resistance, and local lowering of yield strength. This makes the advisability of thermal strengthening carbon steels, as well as low alloy steels of moderate strength properties, doubtful. The treatment of

Card 2/3

X

Increasing the strength of ...

S/028/62/000/003/003/005
D217/D302

high strength reinforcing steels of more than 100kg/mm^2 yield strength by thermal strengthening is most effective for utilization in steel concrete structures. There are 2 figures, 4 tables and 3 Soviet-bloc references.

Card 3/3

X

SOKOLOVSKIY, P.I.; ARONE, R.G.; SUKHOMLINA, A.P.; SAMARYANOVA, A.M.

Thermally strengthened low-alloy grade 09G2 and 14G2 steel for
metal elements. Prom.stroi. 40 no.11:58-61 '62.

(MIRA 15:12)

(Steel, Structural)

S/126/63/015/003/020/025
E193/E383

AUTHORS: Sokolovskiy, P.I., Golovin, S.A., Epshteyn, L.Ye.,
Aronc, R.G. and Yakovleva, V.S.

TITLE: On the problem of increased strength of hardened steel
during tempering by passage of an electron current

PERIODICAL: Fizika metallov i metallovedeniye, v. 15, no. 3,
467 - 470 163.

TEXT: It has been established that steel tempered by the
passage of electrical current has mechanical properties superior
to those of steel tempered in a furnace. The cause of this
difference has not yet been understood - hence the present investi-
gation carried out on steels 5 and 35ГC (35GS). The experiments
(tensile tests, electrical-resistance measurements, determination
of the temperature-dependence of internal friction) were conducted
on wire specimens 14 mm in diameter, 450 mm long, quenched from
860 °C, then tempered at various temperatures either in a furnace
or by passage of an electric current. The results are reproduced
graphically. In Fig. 1, the UTS (σ_T , kg/mm²), yield point
(σ_T , kg/mm²) and elongation (δ , %) of steel 5 are plotted against

Card 1/4
3

S/126/63/015/005/020/025
E193/E385

On the problem of

the tempering temperature of specimens tempered in a furnace (δ_5 and δ_{10} denote elongations measured on a gauge length of 5 and 10 mm, respectively). Similar curves reproduced in Fig. 2 have been constructed for steel 5 specimens, tempered by the passage of electric current. In Fig. 5, the decrease in electrical resistivity ($\Delta\rho$, $\Omega\text{mm}^2/\text{m}$) of steel 5 is plotted against the tempering temperature, curves 1 and 2 relating to specimens tempered, respectively, in the furnace and by electric current. Finally, the temperature-dependence of internal friction of steel 35GS, tempered at 250 °C in the furnace (curve 1) and by passage of electric current (curve 2) is demonstrated in Fig. 7.

Conclusions - Improvement in the mechanical properties of steel tempered by passage of electric current can be explained in the following manner: electrical tempering brings about a greater decrease in the electrical resistivity of the steel, which indicates that carbon is more completely precipitated from the martensite, which means that a larger quantity of carbides is formed. In the same way, the increased width and height of the internal-friction peaks in electrically tempered steel indicates a higher

Card 2/4
3

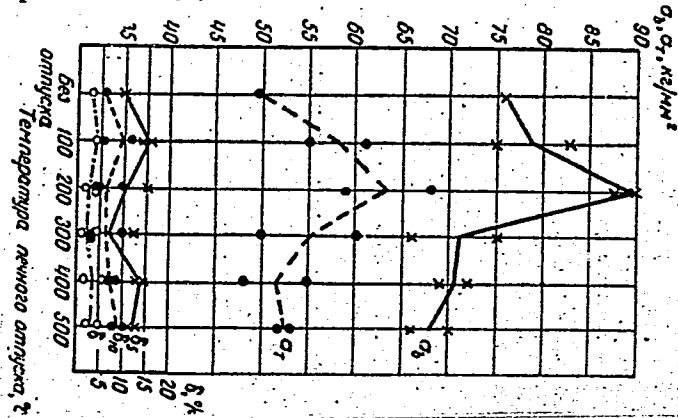
On the problem of....

concentration of dislocations and, consequently, a larger number of sources of relaxation processes. There are 7 figures and 1 table.

ASSOCIATION: Tul'skiy mekhanicheskiy institut
(Tula Mechanical Institute) S/126/63/015/003/020/025
E193/E383

SUBMITTED: May 25, 1962 (initially)
September 25, 1962 (after revision)

Fig. 1:



Card 3/4

ARONE, R.G.; SOKOLOVSKIY, P.I.

Thermally strengthened low-alloy structural steel undergoes less brittle failure at low temperatures. Prom. stroi. 41 no.2:28-30 F '63. (MIRA 16:3)

1. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy.
(Steel, Structural--Testing)

SOKOLOVSKIY, Petr Izrailevich; LEBEDEV, A.I., red.

[Reinforcement steels] Armaturnye stali. Moskva, Izd-vo
Metallurgii, 1964. 207 p. (MIRA 17:6)

SHNEYKROV, Ya.A.; SAVCHENKOV, V.A.; PANICH, B.I.; MONAFHJVA, L.V.; SOTNIK, I.S.;
SGKLOVSKIY, P.I.; MILIN, N.I.

Using reinforcements of St.5ps semi-killed steel. Stal' 24 no.11:
1025-1030 N '64. (MIRA 18:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov, Tsentral'nyy
nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy i Nauchno-
issledovatel'skiy institut betona i zhelezobetona.

BALDIN, V.A.; BELYAYEV, B.I.; SOKOLOVSKIY, P.I.; SHEYNFEL'D, N.M.;
ARONE, R.G.

Steels of increased and high strength for structural elements.
Prom. stroi. 41 no.1:17-21 Ja '64. (MIRA 17:6)

ARONE, R.G.; SOKOLOVSKIY, P.I.

Evaluation of the tendency of steel to cold brittleness under
conditions of unequal distribution of temperatures in a specimen.
Zav. lab. 30 no.1:86-88 1967. (MIRA 17:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh
konstruktsiy.

ARONE, R.G.; SOKOLOVSKIY, P.I.; BERNSHTEYN, S.V.

Method of electron fractographic study of fractures of low alloy steel.
Zav.lab. 30 no.12:1476-1478 '64. (MIRA 18:1)

1. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh
konstruktsiy.

MULIN, N.M.; SOKOLOVSKIY, P.I.; GUZEYEV, Ye.A.; YAKOVLEVA, V.S.

Heat-treated rod steel for the reinforcements of prestressed concrete constructions. Standartizatsiia 29 no.1:29-33 Ja '65.
(MIRA 18:4)

L 56998-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) MJW/JD

ACCESSION NR: AP5012497

UR/0032/65/031/005/0593/0596
620.178.2

AUTHORS: Baldin, V. A.; Sokolovskiy, P. I.; Arone, R. G.

30
29
13

TITLE: Methods of evaluating the tendency of structural steel to cold shortness

SOURCE: Zavodskaya laboratoriya, v. 31, no. 5, 1965, 593-596

TOPIC TAGS: steel, structural strength, structure analysis, cold deformation, temperature dependence, test method/ 18G2AF steel, 09G2 steel, 11G2 steel, 15KhSND steel

ABSTRACT: The methods of cold brittleness evaluation in steel were classified into three groups: I- those for evaluating steel resistance to fracture origination, II- the resistance to fracture propagation, and III- the resistance to brittle destruction as a whole. If the same steel were tested according to these method groups, the highest temperature of the cold shortness threshold would be obtained by Group II because steel resisted fracture origination better than its propagation. These methods were also less sensitive to the conditions of concentration at the notch because they reacted on an already existing fracture. In large specimens the temperature of the cold brittleness threshold determined

Card 1/3

L 56998-65

ACCESSION NR: AP5012497

did not depend on the notch geometry. Even in small specimens (which were more affected by this factor) the critical temperature depended to a lesser degree on the notch shape than the analogous temperature determined by impact strength. The relation of ductility to fracture shape was studied in steel 1802AF specimens with different notch geometry. No definite cold-brittleness threshold was determined due to uniform variation of ductility and fibrosity (of the fracture surface) with temperature decrease. Good correlation was observed when temperatures corresponding to definite degrees of fibrosity in different steels and the destruction work were compared. The critical temperatures (according to fibrosity) were 150 for hot rolled, 250 for hardened, 200 for overheated, and 600 for normalized steel. The corresponding figures determined according to impact strength were: 150, 55, 150, and 1800. All the methods for evaluating steel ability to "eliminate" brittle failure produced qualitatively similar results. Stress increase in a low-stress state increased considerably the temperature of fracture elimination, while at high stresses (when the elimination occurred at high temperatures) the temperature was little affected by the stress increase. Starting with a certain temperature, the resistance of steel (at a given thickness and structural state) to fracture propagation becomes very high. It is concluded that the Group II methods of evaluation are best for determining temperature range of structural

Card 2/3

L 56998-65

ACCESSION NR: AP5012497

steel exploitation, providing that certain limitations are observed. Orig. art.
has: 2 tables.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh
konstruktsiy im. V. A. Kucharenko. (Central Scientific Research Institute of
Building Structures)

SUBMITTED: 00

ENGL: 00

SUB CODE: MM

NO REF SOV: 008

OTHER: 003

Card *AR*
3/3

SOKOLOVSKIY, P.I.; GLADSHTEYN, L.N.; RUDCHENKO, A.V.

Properties of St.3ps semikilled steel for structural elements.
Prom.stroi. 42 no.2:36-40 '65. (MIRA 18:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh
konstruktsiy i Gosudarstvennyy institut po proyektirovaniyu,
issledovaniyu i ispytaniyu stal'nykh konstruktsiy i mostov.

VARNAVSKIY, I.N.; POLYAKOVA, V.S.; ARONE, R.G.; SOKOLOVSKIY, P.I.

15XSND thermally processed steel. Prom. stroi. 42 no.1:
36-37 '65. (MIRA 18:3)

BOGOLOVSKIY, P.I.; ODESKIY, I.D.; URICKIY, M.S.; BARYNINA, I.M.; CHERNASHKIN,
I.C.; ROZENSHTSYN, I.M.; KISSEL', N.N.

Low-carbon Bessemer steel for structural elements. *Prok. stroi.* 22
no. 7:29-32 '65. (MIRA 18:8)

1. Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktov (for Barynina).
2. Nauchno-issledovatel'skiy institut po montazhnym i spetsial'nyim stroitel'nyim rabotam (for Rozenshtsyn).
3. Zhdanovskiy metallurgicheskiy zavod im. D'lisha (for Kissel').

СОКОЛОВИЧ, Р.И.

Using high-strength steel in construction and machinery
manufacture. Standartizatsiya 29 no.8:61-62 '65.
(MIRA 18:10)

L 17693-66 EWP(k)/EWT(m)/T/EWP(w)/EWP(t) JD/HW

ACC NR: AP5027464

(N)

UR/0032/65/031/011/1376/1380

32

AUTHOR: Arone, R.G.; Sokolovskiy, P.I.; Bernsheyn, S.V.; Arnol'd, G.Ye.

31

ORG: Central Construction Research Institute im. V.A. Kucheranko
(Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy)

3

TITLE: The relation between the macroscopic and microscopic structure of brittle fractures

44.55 16

SOURCE: Zavodskaya laboratoriya, v.31, no.11, 1965, 1376-1380

TOPIC TAGS: brittleness, test method, steel structure

ABSTRACT: The experiments were made on samples of type 10G2S hot rolled steel having a ferrite-pearlite structure and the following composition (in %): 0.105 carbon; 1.43 manganese; 1.00 silicon; 0.06 chromium; 0.06 nickel; 0.10 copper; 0.023 sulfur; 0.02 phosphorous; 0.015 titanium. A photo shows macroscopic photos of shock fractures in samples which failed at +20, -40, and -196°C. The shock strength of these samples was respectively 7.7, 3.5, and 0.2 kgf-m/cm². The microstructure of the surface of a shock fracture sample which failed at -196°C showed a typically brittle structure. The results of the investigation show that different microstructures of the fractures may correspond macroscopically to a brittle

Card 1/2

UDC: 620.178.2

I 17693-66

ACC NR: AP5027464

failure; this indicated differences in the failure process, as well as in the degree of local plastic deformation which precedes and accompanies the failure and, in the final analysis, differences in the manner of formation of the fractures. Orig. art. has: 2 figures.

SUB CODE: 11/ SUBM DATE: 00/ ORIG REF: 00/ SOV REF: 011/ OTH REF: 002

L 37632-66 EWP(m)/EWP(w)/EWP(v)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HM
ACC NR: AP6015034 (N) SOURCE CODE: UR/0125/66/000/004/0001/0007

AUTHORS: Sokolovskiy, P. I.; Yakovleva, V. S.

19
B

ORG: TsNIISK

TITLE: Effects of welding on the mechanical properties of heat-treated low alloy steel

SOURCE: Avtomaticheskaya svarka, no. 4, 1966, 1-7

TOPIC TAGS: metal welding, seam welding, alloy steel, metal property/10G2S alloy steel, 15G2S alloy steel, 15KhSND alloy steel, 15G2B alloy steel, 15GSMFR alloy steel

ABSTRACT: The weakening effects of welding on the mechanical properties of heat-treated low alloy steels were experimentally investigated on 10--12 m thick slabs of 10G2S, 15G2S, 15KhSND, 15G2B, and 15GSMFR alloy steel. A table of mechanical properties (σ_B , σ_T , δ_5) of the steels tempered at various temperatures is presented, and the effects of welding on these properties at various cooling rates (2°/sec, 8, 30, and 280°/sec) were measured. Graphs of hardness as a function of distance from the weld are also given for all steels. It was found that steels 15GSMFR and 15G2B were least affected by the welding heat, followed by steels 15G2S, 15KhSND, and 10G2S. The weakening effects were found to be a function of tempering temperature and cooling rate (welding regime). Best results were obtained for a tempering temperature of 500--550C and a cooling rate of 8 and 30°/sec. Orig. art. has: 3 figures and 5 tables.

SUB CODE: 13, 11/11 SUBM DATE: 25Jun65/ ORIG REF: 001 UDC: 621.791.669.16-194:539.4

ACC NR: AP6018640 (A) SOURCE CODE: UR/0422/66/000/005/0087/0087

AUTHOR: Arone, R. G.; Balakina, I. A.; Bochkareva, A. I.; Stetsenko, B. A.; Sokolovskiy, P. I.

ORG: none

TITLE: A standard for low-alloy structural steel

SOURCE: Standarty i kachestvo, no. 5, 1966, 87

TOPIC TAGS: construction material, structural steel, alloy steel, welding evaluation, mechanical property / 16GS steel, 09G2S steel, 10G2Sl steel

ABSTRACT: A series of innovations in low-alloy structural steels (GOST 5058-65) based on recent work done at the Central Scientific Research Institute for Ferrous Metallurgy is described. Nineteen new grades of high strength low-alloy steel containing small amounts of carbide and nitride forming elements (Ti, V, Zr, Nb) were developed. Higher quality and performance are claimed for the new materials and suitable applications are recommended. The steels were melted in standard Martens furnaces and oxygen-converted. While the majority are used in the hot-rolled condition, they may be heat-treated to yield strengths of 40-50 kg/cm² with a saving of 20-30% in material. The heat-treated steels possess lower brittle fracture tendencies and slight aging sensitivity. Phosphorus and sulfur contents of the steels were maintained within strict limits (below

Card 1/2

L 45151-66 EWT(m)/EWP(w)/EWP(v)/T/EMF(t)/ETI/EMF(k) IJP(c) JD/HM/HW
ACC NR: AP6027434 (A) SOURCE CODE: UR/0125/66/000/007/0070/0073

29
22
B

AUTHOR: Sokolovskiy, P. I.; Uritskiy, M. R.; Bogomolova, A. S.

ORG: [Sokolovskiy; Uritskiy] TSNIISK; [Bogomolova] UralNITI

TITLE: High-strength welded pipe for structural designs

SOURCE: Avtomaticheskaya svarka, no. 7, 1966, 70-73

TOPIC TAGS: structural design, construction, welded pipe, pipe steel/S-40 steel, S-70 steel

ABSTRACT: Today's expansion of construction has given rise to new structural high-strength steel sections of modern design, thin-walled tubular shapes being among those in greater demand. Owing to their higher resistance to both twisting and aerodynamic forces, tubular sections of high-strength steel offer a considerable economy of metal. Investigations have shown that the substitution of S-75 steel in thin-walled tubular sections for S-24 grade steels has allowed weight reduction by one half and has produced a saving of 25-30% in cost. As compared

Card 1/2

UDC: 621.791.77:621.648.2/.3

L 45151-66

ACC NR: AP6027434

7

to others, tubular shapes have greater aerodynamic resistance, a major factor in construction of towers and masts. Most commonly used diameters in hot-rolled seamless pipe are 50—300 mm. The criterion of maximum effectiveness in a tubular section is the D/t ratio (where D is the outer diameter and t , the wall thickness). The higher this ratio, the greater the moment of inertia of the cross section for the same amount of metal. For consideration of local stability and joint rigidity, the maximum ratio is set at 100. The paper offers three methods of making straight-seam pipe in S-40 to S-70 grades: 1) bending and welding of coil sheet having the necessary strength prior to these operations; 2) attaining the required strength by normalizing the pipe of hot-rolled or annealed coil sheet; and, finally 3) obtaining the necessary strength of pipe by heat treatment, i. e., hardening and tempering. A variety of grades is given in the original article. Their chemical composition and graphs for the mechanical properties of some of these steels under various heat-treating conditions are presented. Normalizing is suggested as the preferred type of heat treatment. The authors note the participation of Engineer A. M. Chirkin in the experimentation as well as the assistance of the UIChM and IES Institutes in the development of various grades of pipe steels. Orig. art. has: 3 figures and 3 tables. [LD]

SUB CODE: 13/ SUBM DATE: 19Jan66/ ORIG REF: 004/

Card 2/2

SOKOLOVSKIY, R.M. (Leningrad, Kirovskiy prospekt, 26/28, kv. 183)

Reproduction of cervical "pseudocarcinoma" in rats. Vop. onk. 10 no. 4:
35-41 '64. (MIRA 17:11)

1. Iz laboratorii eksperimental'noy onkologii (zav. - zasluzhennyy
deyatel' nauki prof. N.V. Lazarev) Instituta onkologii AMN SSSR (dir.
deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrot) i Leningradskogo
onkologicheskogo dispansera (glavnyy vrach - doktor S.S. Yaritsyn).

SOKOLOVSKIY, R.M. (Leningrad, Kirovskiy pr., 26/28, kv.183)

Experimental induction of pseuderosion of the cervix uteri in mice.
Vop.onk. 5 no.9:325-333 '59. (MIRA 12:12)

1. Iz laboratorii eksperimental'noy onkologii (zav. - chlen-korrespondent AMN SSSR L.M. Shabad), Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR A.I. Serebrov) i Goronkodispensera (glavnyy vrach - V.A. Filippov).

(CERVIX UTERIE, pathol.)

(ANDROGENS pharmacol.)

(PROGESTERONE pharmacol.)

ZAK, L.P.; SOKOLOVSKIY, R.M. (Leningrad)

Association of so-called carcinoma in situ of the larynx with capillary angioma. Arkh.pat. no.11:76-78 '61.

(MIRA 14:10)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. P.V. S Sipovskiy) Gosudarstvennogo instituta usovershenstvovaniya vrachey imeni S.M. Kirova (dir. A.Ye. Kiselev) i Leningradskogo gorodskogo onkologicheskogo dispansera (glavnyy vrach S.S. Yaritsyn).

(LARYNX---CANCER)

(CAPILLARIES---TUMORS)

SOKOLOVSKIY, R.M.; DERAZHNE, A.B.; MALYSHEVA, Z.I.

Morphological diagnosis of carcinoma in situ of the cervix
uteri. Vop.onk. 7 no.8:43-54 '61. (MIRA 15:1)

1. Iz patomorfologicheskoy laboratorii (zav. - R.M. Sokolovskiy)
Leningradskogo gorodskogo onkologicheskogo dispansera (glavn.
vrach - S.S. Yaritsyn) i kafedry akusherstva i ginekologii Lenin-
gradskogo pediatricheskogo meditsinskogo instituta (dir. -
Ye.P. Semenova).

(UTERUS--CANCER)

VOL'FSON, H.I.; SOKOLOVSKIY, R.M.; KATSEVMAN, A.Ye.

Some new data on experimental tumors of the cervix uteri. Part I:
Blastogenic action of ethylene glycol on the epithelium of the vagina
and cervix uteri in mice. Vest.AMN SSSR 17 no.6:79-87 '62.

(MIRA 15:8)

1. Institut onkologii AMN SSSR, Leningrad.

(UTERUS--TUMORS) (VAGINA--TUMORS) (ETHYLENE GLYCOL--TOXICOLOGY)

SOKOLOVSKIY, R.M. (Leningrad, P-101, Kirovskiy prospekt, 26/28, kv.183)

"Reserve" cells in pseudoerosions of the cervix uteri. Vop.
onk. 10 no.5:79-84 '64. (MIRA 18:8)

1. Iz patomorfologicheskoy laboratorii (zav. - R.M.Sokolovskiy)
Leningradskogo gorodskogo onkologicheskogo dispansera (glavnyy
vrach - S.S.Yaritsyn).

SOKOLOVSKIY, R.P.; ROMADAN, P.F.

Ways of utilizing the internal potentialities of an enterprise.
Stek. 1 ker.12 no.9:23-27 S'55. (MLRA 8:12)

1. Kuybyshevskiy zavod stroitel'noy keramiki
(Kuybyshev--Ceramic industries)

SOKOLOVSKIY, R.P.

Improving the tunnel kiln. Stek. i ker. 20 no.4:32-33 Ap '63.
(MIRA 16:3)

1. Kuybyshevskiy zavod stroitel'noy keramiki.
(kilns)

SOKOLOVSKIY, Sh.

Party organization and technical progress. Grazhd. av. 12 no.7:10-12
Jl '55. (MIRA 11:6)

1.Zamestitel' nachal'nika Vnukovskikh lineynykh ekspluatatsionno-remontnykh masterskikh po politicheskoy chasti.
(Airplanes--Maintenance and repair)

SOKOLOVSKIY, S.A., inzh.; SHOVGENEV, P.P., inzh.

New device for studying pulse processes in windings. Elektrichestvo
no.10:56-59 0 '60. (MIRA 14:9)

1. Zaporozhskiy transformatornyy zavod.
(Electric transformers--Windings)
(Cathode ray oscillograph)

ZAMYATINA, L.V., inzh.; SOKOLOVSKIY, S.A., inzh.

Methodology for impulse measurements in electric
transformers. Vest. elektroprom. 33 no.10:23-27
(MIRA 15:9)
'62.
(Electric transformers--Testing)

SOKOLOVSKIY, S.A.

Optical and electrical system of an apparatus for measuring the temperature of an electric arc using a spectral line conversion technique. Energ. i elektrotekh. prom. no.3:30-33 J1-S '63.
(MIRA 16:10)

1. Kiyevskiy politekhnicheskii institut.

41711-65 EWT(1)/EPF(n)-2/EMG(m)/EPA(w)-2 Pz-6/Pc-4/Fab-10/Pi-4 IJP(c)
ACCESSION NR: AR5008413 WW/AT UR/0058/65/000/001/D024/D024

SOURCE: Ref. zh. Fizika, Abs. 1D187

55
B

AUTHOR: Sokolovskiy, S. A.

TITLE: Procedure for spectroscopic measurements of the temperature field of an electric-arc plasma

CITED SOURCE: Tr. Kiyevsk. politekhn. in-ta, v. 44, 1963, 54-61

TOPIC TAGS: arc plasma, temperature field, spectral line, spectroscopy, electric arc temperature

TRANSLATION: An installation has been developed for the measurement of the temperature of an electric arc by the method of inversion of spectral lines, with a photoelectric method of recording their intensity. The optical and electrical systems of the installation, and also the properties of the standard light source, have been described earlier. The main features of the installation are considered, together with a procedure for the measurement of the temperature in the cross

Card 1/2

L 41711-65

ACCESSION NR: AR5008413

section of the arc. Since the measurement time amounts to only 0.1 msec, the method is applicable for the measurement of the temperature of both dc and ac arcs.

SUB CODE: OP, EE

ENCL: 00

Card 2/2

L 42828-66 EWT(d)/EWT(i)/T IJP(c) WW/AT

ACC NR: AR6010525

SOURCE CODE: UR/0196/65/000/010/I037/I037

AUTHOR: Fedchenko, I. K.; Sokolovskiy, S. A.

77
B

TITLE: Assembly for the measurement of the temperature field of an electric arc plasma by means of the photoelectric method of recording moment of rotation of spectral lines

SOURCE: Ref. zh. Elektrotehnika i energetika, Abs. 10I228

REF SOURCE: Vestn. Kiyevsk. politekhn. in-ta. Ser. elektroenerg., no. 1, 1964, 3-16

TOPIC TAGS: plasma temperature, temperature measurement, electric arc, spectral line, photoelectric method, measuring instrument

ABSTRACT: The method of rotation of spectral lines is applied for the instantaneous measurement of a plasma temperature (measurement duration was of the order of 0.5% of the oscillation period of the industrial frequency). An EV-39 device, generating emission corresponding to the emission of an absolute black body at a temperature of 39,000K, is used as a reference source. A special synchronization scheme is offered by means of which it is possible to measure the temperature at any instant of the half-period of arc current, which makes it possible to determine the change in the temperature of the arc column in the course of the current period. The assembly also makes it possible to find the temperature distribution

Card 1/2

UDC: 621.316.5.014.31

L 42828-66

ACC NR: AR6010525

across the cross section and along the arc column. [Translation of abstract] V. Fillstovich

SUB CODE: 1420,

Card

2/2

hh

FELOCHENKO, I.K., doctor techn. nauk; SOKOLOVSKIY, S.A., kand. tekhn. nauk

Generator for studying overvoltages in high-voltage transformer
windings. Energ. i elektrot kh. (prom. no.4:32-33 G-D 1965.

(MIR 19:1)

ARAKELOV, A.S.; BORISOV, V.A.; GAL'PERIN, I.I.; GUREVICH, A.G.; DOVZHUK,
G.T.; PARSHIN, R.N.; SOKOLOVSKIY, S.M.; SELIKHOV, V.L., SHIFRIN,
D.L.; ETKIN, M.V.; GET'YE, V.A., red.toma; YELIN, V.I., red.toma;
SOLDATOV, K.N., red.toma; SVYATITSKAYA, K.P., vedushchiy red.;
TROFIMOV, A.V., tekhn.red.

[Equipment used in the petroleum industry] Neftianoe oborudovanie;
v shesti tomakh. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-
toplivnoi lit-ry. Vol.1. [Compressors and pumps] Kompessory i
nasosy. 1958. 234 p. (MIRA 12:5)

(Petroleum industry--Equipment and supplies)
(Pumping machinery) (Compressors)

25(2)

PHASE I BOOK EXPLOITATION

SOV/1227

Yelin, Vladimir Ivanovich, Soldatov, Konstantin Nikitich, and
Sokolovskiy, Solomon Moiseyevich

Nasosy i kompressory (Pumps and Compressors) Moscow, Gostoptekhizdat, 1958. 371 p. 10,000 copies printed.

Executive Ed.: Svyatitskaya, K.P.; Tech. Ed.: Polosina, A.S.

PURPOSE: This book is intended as a textbook for students of petroleum tekhnikums and may also be useful as a practical manual for engineers and technicians in the petroleum industry.

COVERAGE: The book covers fundamental theory and basic principles of the design and operation of pumps, compressors, and fans, and describes various types of these machines used in petroleum industry. Basic rules for operation, maintenance, and repair are presented. Chapters I-VI were written by V.I. Yelin,

~~Card 1/15~~

Pumps and Compressors

SOV/1227

Chs. VII-XIX by K.N. Soldatov', and Chs. XX-XXXI by S.M. Sokolovskiy. The following Soviet scientists and organizations and their fields of contribution are mentioned: V.G. Shukov, P.K. Khudyakov, I.I. Kukulevskiy, L.S. Leybenzon, and A.A. Get'ye - development of piston pumps; N. Ye. Zhukovskiy, and S.A. Chaplygin - principles of impeller-blade theory; I.I. Kukolevskiy, I.G. Yes'man, G.F. Proskura, and A.A. Burdakov - improvement and application of centrifugal pumps; Scientific-Research Institute for Petroleum Machinery, OKB (Special Design Bureau) on pistonless pumps, and Giproazneft' (State Institute for Design and Planning of the Azerbaydzhan Petroleum Industry), and machine building plants: "Borets", (first to build pumps and compressors for the petroleum industry), "Krasnyy molot," and plant imeni. Montin-equipping the USSR petroleum industry with domestic pumps. There are 13 references, all Soviet.

TABLE OF CONTENTS:

PART I. PUMPS

General Information
Card 2/15

3

SOKOLOVSKIY, S.M.

Electric-arc low capacity steel furnaces. *Biul.tekh.-ekon.inform.*
no.12:13-15 '58. (MIRA 11:12)
(Electric furnaces) (Steel metallurgy)

SOKOLOVSKIY, S.M.

Induction furnaces and mixers working on industrial frequency
and having iron cores. Biul.tekh.-ekon.inform. no.12:16-18
'58. (MIRA 11:12)

(Electrometallurgy)

AUTHOR: Sokolovskiy, S.M., Engineer 28-58-3-13/39

TITLE: Output Prospects and Normalization of Piston Compressors
(Perspektivy vypuska i normalizatsiya porshnevnykh kompressorov)

PERIODICAL: Standartizatsiya, 1958, Nr 3, pp 45-48 (USSR)

ABSTRACT: The article deals with the general design principles of normalized (i.e. standardized) piston compressors being produced now by the "Borets" plant. The new "2S" type air compressors are characterized by an angular position of the cylinders, the use of roller bearings for the crankshaft and needle bearings in the slide block head, a reduced weight of all moving parts, and a standard "base" (the crank drive, the frame and casing). Technical characteristics of the compressors built on the standard "base" are given. This year the plant will produce also compressors on "bases" "2P" and "5P". Characteristics of compressors which the plant plans to produce on the "5P" base (with loads on piston rod up to 5,000 kg) are indicated (Table 4). There are 4 tables.

ASSOCIATION: Mashinostroitel'nyy zavod "Borets" (Machine Building Plant "Borets")

Card 1/1

1. Compressors--Characteristics 2. Compressors--Standardization

SOKOLOVSKIY, S.M.

The OKB-692 electric vacuum batch furnace. Biul.tekh.-ekon.inform.
no.2:19-21 '59. (MIRA 12:3)
(Electric furnaces)

SOKOLOVSKIY, S.M., insh.

Safety problem in installing electric drives in areas exposed to
fire and explosion hazards. Khim. mash. 3 no.3:39-40 My-Je '59.
(MIRA 12:12)

(Electric driving) (Compressors)

SOKOLOVSKIY, S.M.

Vacuum electric shaft furnaces. Bnl.tekh.-ekon.inform.
no.5:27-29 '59. (MIRA 12:8)
(Electric furnaces) (Vacuum metallurgy)

SOKOLOVSKIY, S.M.

The F13 photocompensation comparator. Biul.tekh.-ekon.inform.
no.12:35-36 '59. (MIRA 13:4)
(Electric meters)

PHASE I BOOK EXPLOITATION

SOV/5398

Sokolovskiy, Solomon Moiseyevich

Uglovyye kompressory (Angular Compressors) Moscow, Gostoptekhizdat,
1960. 89 p. 5,160 copies printed.

Exec. Ed.: G.V.Rastova; Tech. Ed.: I.G.Fedotova.

PURPOSE: This booklet is intended for the personnel of all branches
of industry using compressors.

COVERAGE: The booklet discusses the design of angular compressors
based on general compressor characteristics. Compressor au-
tomation, protection, installation, and operation are described.
No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

Introduction

3

Card ~~1/2~~

SOKOLOVSKIY, S.M.

The D533 type electric measuring instruments. Biul.tekh.-ekon.
inform. no.1:44-46 '60. (MIRA 13:5)
(Electric instruments)

SOKOLOVSKIY, S.M.

Switchboard electric meters. Biul.tekh.-ekon.inform.
no.7:34-35 '60. (MIRA 13:7)
(Electric meters)

S/193/60/000/012/010/018
A004/A001

AUTHOR: Sokolovskiy, S. M.

TITLE: The Noiseless Panel-Type K18 Electric Tachometers

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No. 12, pp.31-32

TEXT: The Leningrad "Vibrator" Plant has designed and tested the noiseless panel-type remote-control K18 electric tachometer, which is intended for the measurement and recording of the number of revolutions of propeller shafts of sea-going and river boats, and shafts of other machines. The speed being measured is converted by a pickup into electromotive force, the frequency of which is proportional to the rotation speed being measured. The pickup voltage is transmitted to the synchronous three-phase motors of the meters whose speed of rotation is proportional to the pickup frequency. With the aid of an induction device, this speed is converted into a proportional deviation of the measuring indicator. The direction of shaft rotation determines the order of phase sequence in the pickup and produces a deviation of the measuring indicator to either side. Depending on the measuring range and type of pickup, the tachometers can be used for shafts with the following diameters: 50-200 mm, 90-340 mm, and 200-500 mm. The basic errors

Card 1/3

The Noiseless Panel-Type K18 Electric Tachometers

S/193/60/000/012/010/018
A004/A001

of the tachometers do not exceed $\pm 1\%$ of the total of the final scale values. The scale length of the meter types I160 (I160), I181 (I181), and I183 (I183) amount to 200 and 150 - 155 mm. The angle of the meter scales is 270° . Relaxation time does not exceed 3 sec. The tachometers are intended for service in a temperature range of the surrounding air from -40 to $+60^\circ$ and a relative humidity of up to 98%. The indicating errors caused by temperature changes from $+20^\circ$ do not exceed $\pm 0.5\%$ of the total of end values for each 10° of temperature variation. Indicating errors caused by the effects of outer magnetic fields do not exceed $\pm 1\%$ of the scale end values. The supplying current at the full deviation of the indicator and a voltage of 18 v amounts to 0.2 amp. The tachometer is vibration and shock-proof. The tested voltage of the insulation amounts to 500 v. The rated power of the pickup is 27 v.amp, the mean pickup voltage is 18 v. The tachometer pickup is a waterproof arc-stator synchronous three-phase generator. The I150 and I160 meters are splashproof, while the I181 and I183 meters are hermetically sealed. The below-mentioned table presents the weights and dimensions of the tachometer parts. ✓

Table:

1) Basic tachometer parts; 2) weight, kg; 3) overall dimensions, mm; 4) G11 (G11) pickup; 5) G12 pickup; 6) G13 pickup; 7) I150 meter; 8) I160 meter;

Card 2/3

The Noiseless Panel-Type K18 Electric Tachometers

S/193/60/000/012/010/018
A004/A001

9) I181 or I183
meter; 10) set of
spare parts.
There is 1 figure
and 1 table.

1) Основные части тахометра	2) Вес, кг	3) Габаритные размеры, мм
4) Датчик Г11	16-18	342×285×146
5) " Г12	22-27	463×395×146
6) " Г13	26-47	653×450×146
7) Измеритель И150	2	110×110×95
8) " И160	3	135×135×115
9) " И181 или 183	3,6	215×144×132
10) Комплект запасных частей	1	

Card 3/3

ABAKUMOVSKIY, D.D.; ANASTAS'IN, V.F.; RATS, P.Ye.; SOKOLOVSKIY, S.M.;
SOLDATOV, K.N.; VRONSKIY, L.N., vedushchiy red.; TROFIMOV, A.V.
tekhn. red.

[New equipment used in the petroleum industry; 1961] Novoe neftiannoe
oborudovanie; 1961 god. Moskva, Gos. nauchno-tekhn. izd-vo nef. i
gorno-toplivnoi lit-ry, 1961. 154 p. (MIRA 14:12)
(Petroleum industry—Equipment and supplies)

SOKOLOVSKIY, S.M., inzh.

New compressors made at the Borets Plant. Khim. mash.
no.6:7-10 NLD '61. (MIRA 15:2)
(Compressors)

SOKOLOVSKIY, S.M.

Recording electric meters with a watch mechanism for feeding diagram
paper. Biul.tekh.-ekon.inform. no.7:54-55 '61. (MIRA 14:8)
(Electric meters)

SOKOLOVSKIY, S.M.

The Kh13 electric quantity meters and Kh14 relay quantity meters.
Biul.tekh.-ekon.inform. no.10:53 '61. (MIRA 14:10)
(Electric meters)

SOKOLOVSKIY, S.M.

The N320 high-speed recording device. Biul.tekh.-ekon.inform.-
Gos.nauch.-issl.inst.nauch. i tekhn.inform. no.6:39-40 '62.
(MIRA 15:7)

(Recording instruments)