SKVORTSOV, A.

Urgent problems in the organization and planning of the municipal economy of the U.S.S.R. Vop. ekon. no.4:135-141 Ap '58. (MIRA 11:5)
(Municipal services)

SKVORTSOV, A

KOZYREV, M.; SKVORTSOV, A. (Yaroslavl').

Applied physical training of firemen. Pozh. delo 4 no.5:13-14 My '58.
(Fire prevention--Study and teaching) (MIRA 11:5)

SKVORTSOV, A.

Recent upswing in mass education in defense. Voen. znan. 39 no.3: 2-4 Mr '63. (MIRA 16:7)

1. Zamestitel' predsedatelya TSentral'nogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu SSSR.
(Military education)

TOROPOV, N.; SKVORTSOV, A.

All-out participation in fire prevention. Pozh.delo 6 no.8:11 Ag '60. (MIRA 13:8)

1. Zamestitel' nachal'nika pozharnoy okhrany kombinata "Krasnyy Perekop (for Toropov). 2. Starshiy inspektor Upravleniya pozharnoy okhrany, Yaroslavl' (for Skvortsov).
(Yaroslavl--Factories--Fires and fire prevention)

SKVORTSOV, A., inzh.; RABINOVICH, S., inzh.

Making forms of wooden slabs. Stroitel' no.7:6-7 Jl '58. (MIRA 11:9)

(Concrete construction--Formwork)

SKVORTSOV, A.

Toward the 5th congress of the All-Union Volunteer Society for Assistance to the Army, Air Force and Navy of the U.S.S.R. Kryl.rod. 13 no.4:4-6 Ap '62. (MIRA 15:5)

1. Zamestitel' predsedatelya TSentral'nogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu SSSR.

(Aerial sports)

SKVORTSOV, A.

Raise higher the banner of Soviet automobile and motorcycle racing. Za rul. 20 no.9:2-5 S '62. (MIRA 15:9)

1. Zamestitel' predsedatelya TSentral'nogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu SSSR.
(Automobile racing) (Motorcycle racing)

CHERNYSH, V.; BABAKHADZHAYEV, A. (st.Kagan Tashkentskoy zheleznoy dorogi); FEDOTOV, G. (Penza); KLOKOV, A. (Yaroslavl'); SKVORTSOV, A. (Yaroslavl'); CHISTYAKOV, M. (Tula); SEROV, B. (poselok Nizhneangarsk, Buryatskaya ASSR); SANAKOYEV, I. (Magadanskaya oblast'); AGAFONOV, G., instruktor profilaktiki (Yegor'yevsk, Moskovskaya obl.); MALANOV, V. (Chelyabinsk)

Readers' letters. Pozh.delo 7 no.9:31 S '61. (MIRA 14:11)
(Fire prevention)

SKVORTSOV, A.

The wider the perspective the greater the mastery. Radio no.2: 6-8 F '62. (MIRA 15:1)

1. Zamestitel' predsedatelya TSentral'nogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu.
(Radio)

SKVORTSOV, A.

The 22d Congress of the CPSU on strengthening the defense of the country. Voen. znan. 38 no.3:2-4 Mr '62. (MIRA 15:2)

1. Zamestitel' predsedatelya TSentral'nogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu.
(Russia—Defenses)

SKVORTSOV, A.

Ultrasonics, enemy of bacteria. IUn.tekh. 6 no.11:78 N '61.
(MIRA 14:11)

1. Rukovoditel' radiokruzhka Ural'skogo doma pionerov.
(Ultrasonic waves--Industrial applications)

VORONIN, V., inzh.; SKVORTSOV, A., inzh.

Use of adobe to fill in frames. Sel'. stroi. 16 no.10:7-8 O '61.
(MIRA 14:11)

(Building, Adobe)

SKVORTSOV, A.

Towards volunteer work. Za rul. 20 no.12:1-2 D '62. (MIRA 15:12)

1. Zamestitel' predsedatelya TSentral'nogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu SSSR.
(Automobile racing) (Motorcycle racing)

SKVORTSOV, Anatoliy Alekseyevich DECEASED
c. 54

1961
1

Geophysics see IIC

SKVORTSOV, A. A.

"Cycle of Development of the Minor Tape-Worm (Diphyllobothrium Minus Chol.)," Dok. AN, 27, No. 6, 1940. All-Union Inst. Medicine; Dept. Parasitology, Moscow, c1940-.

SKVORTSOV, A. A.

"Diagnostication of Cysticercosis in Cattle by Means of Allergic Reaction," Dok. AN, 32, No. 7, 1941. Dept. Medical Parasitology; All-Union Inst. Exper. Medicine, Moscow, c1941-.

SKVORTSOV, A. A. (Moscow)

"On the Permeability of Insect Integuments For Contact Insecticides" (p.242) by Skvortsov, A. A.

SO: Advances in Modern Biology (Uspekhi Sovremennoi Biologii) Vol XXI, No. 2, 1946

SMIRNOV, A. A.

Smirnov, A. A. "The penetrability of insect skin in relationship to insecticidal preparations", In the collection: Voprosy khrayevoy, prikladnoy i meditsinskoy parazitologii, Vol. II, Moscow, 1944, p. 143-77, - Bibliog: 26 items.

SO: U-4393, 17 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).

SHKOLNIK, A. A.

SHKOLNIK, A. A. "The effect of surface-active materials on the ability of hexyl resorcinol to penetrate the cuticle of insects", Trudy Tsentr. nauch.-issled. dezinfekts. in-ta, Issue 5, 1949, p. 133-41, - Bibliog: 27 items.

SO: U-4631, 16 Sept 53, (Letopis 'Zhurnal 'nykt Statey, No. 24, 1949).

[illegible], A. [illegible], [illegible], L. I. "Chlor[illegible]de synergetics for pyrethrum preparations of the 'Peritol' type", Trudy Tsentr. nauch.-issled. dezinfekts. in-ta, Issue 5, 1949, p. 116-[illegible].

SO: L-4631, 16 Sept 53, (Letopis 'Zhurnal 'nykh Statey, No. 24, 1949).

SKVORTSOV, A. A.

"Strength Calculation of Heating Pipelines." Thesis for degree of Cand. Technical Sci. Sub 4 Apr 49, Moscow Order of the Labor Red Banner Engineering Construction Inst imeni V. V. Kuybyshev.

Summary 82, 18 Dec 52, Dissertations Presented For Degrees in Science and Engineering in Moscow in 1949. From Vechernyzyz Moskva, Jan-Dec 1949.

SKVORTSOV, A. A.

Steam Boiler Inspection

Errors in the eighth chapter of the manual on boiler inspection, State Power Publishing Agency, 1951. Za ekon. top. 9 no. 7, 1952.

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

SKVORTSOV, A. A.

USSR/Engineering - Hydraulics, Instruments Nov 52

"Instrument for Remote Measuring of Soil Moisture," A. A. Skvortsov, Cand Tech Sci

Gidrotekh i Meliorats, No 11, pp 54-61

Discusses ohmic method used at lab of All-Union Heat Engineering Inst for investigating moisture of underground heat pipeline insulation and surrounding ground. Describes moisture-measuring device which represents hollow cylinder with steel electrodes interconnected into electric circuit consisting of resistance-measuring instrument and

247T49

4.5-v battery. Suggests that device, besides its primary application in soil studies, can be used in investigating filtration of water through ground in various hydraulic structures.

247T49

247T49

SKVORTSOV, A. A.

Boilers

Formation of cracks in pipes of connecting area of a direct flow boiler. Izv. VTI 21, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, May 1952.
Unclassified.

SKVORTSOV, A. A.

Heating From Central Stations

Constructing a central hea ing network in Moscow. Gor khoz. Mosk. 26 no. 6, 1952.

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

LYAKH[illegible], A. A., Eng.; SKVA[illegible]TSOV, A. A.

Heating Pipes

Using large block construction in laying heating pipes. Stroitel'stvo No. 2, 1953.

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

PERIODICAL ABSTRACTS

AID 4177 - P

Sub.: USSR/Engineering

SKVORTSOV, A. A.

O KNIGE M. YA. SHTAERMANA "IZOLYATSIYA KHOLODIL'NIKOV" (Shtaerman, M. Ya. Insulation of refrigerators) Izolyatsiya kholodil'nikov. Pishchepromizdat, 1954, (Book review). Teploenergetika, no. 2, F 1956: 61-63.

The book is severely criticized for errors in mathematical analyses, on data of insulating materials, lack of detailed descriptions of refrigerator designs etc. The book is considered unsatisfactory as a textbook.

SKVORTSOV, A.A.

SRG

745. WAYS TO LENGTHEN LIFE OF BURIED HOT WATER PIPING. Skvortsov, A.A. Development of the (Elekt. Sta. (Pwr Sta., Moscow), July 1954, vol. 25, 26-29). Russian asbestos cement industry has brought to the fore the merits of replacing to some extent underground steel piping used for heating systems, which is susceptible to corrosion, by asbestos pipes with or without internal steel walls, the problem of internal corrosion having been largely solved. This discussion of piping for the conveyance of hot liquids also includes a reference to the advantages of thick-walled vitreous piping. B.E.A.

SKVORTSOV, A.A., kandidat tekhnicheskikh nauk.

"Calculating thermal expansion of steam pipes." A.A.Voloshin. Reviewed by A.A.Skvortsov. Elek.sta. 25 no.9:62-64 S '54. (MLRA 7:9)
(Steampipes) (Voloshin, A.A.)

SKVORTSOV, A.A.

AID P - 507

Subject : USSR/Engineering

Card 1/1 Pub. 78 - 21/27

Authors : Skvortsov, A. A. and Lyamin, A. A.

Title : New type of pipe line expansion compensator

Periodical : Neft. Khoz., v. 32, #6, 76-78, Ju 1954

Abstract : The authors discuss pipe expansion fittings of various types and the "S" and "U" types of expansion compensators. Examples of computations are presented for the "S" type compensators. 4 drawings and 3 Russian references (1935-1953).

Institution : None

Submitted : No date

SKVORTSOV, A.A., kandidat tekhnicheskikh nauk

Standards for designing expansion pieces for heat piping systems. Standartizatsiia no.4:47-51 Jl-Ag '55. (MLRA 8:10)

1. Vsesoyuznyy teplotekhnicheskiy institut imeni Dzerzhinskogo
(Pipe fittings--Standards)

Skvortsov, A. A.

AID P - 2087

Subject : USSR/Electricity

Card 1/1 Pub. 26 - 29/29

Author : Skvortsov, A. A., Kand . of Tech. Sci.

Title : B. V. Lopatin. Heating Networks, Building Structures and their Calculation, Moscow, Government Publishing House of Literature on Construction and Architecture, 1954, 252 pp. (Book Review).

Periodical: Elek. sta., 4, 62-64, Ap 1955

Abstract : A critical review of this manual which can be used as a textbook. Although the book contains abundant information, the author of the review points out many inaccuracies and suggests that it be used "with caution".

Institution: None

Submitted : No date

SOV/112-59-1-336

Investigation of Insulating Structures of Underground Heating Pipelines

foam concrete for various degrees of moisture penetration are presented. A sharp increase in heat conductivity on moistening the insulator is noted; thus, computations based on dry-insulator data are unfounded. The mechanism of moistening suspension-type insulating structures was determined; the asbestos-cement crust cannot protect them from moistening by water vapor; nor can borulin protect them because it loses its hydroinsulating properties after a prolonged heating. It is noted that borulin hydroinsulation inhibits the drying process. Tests have shown that asbestos-cement slabs imbibe moisture quicker and dry out slower than other materials. Conclusions were drawn regarding the mechanical strength of the following: Conduits made from diatomaceous segments and bricks, asbestos-slate ducts, medium-size tunnels, reinforced-foam-concrete conduits, and reinforced-concrete half-cylinders. An electric hygrometer and methods for its testing are described; measurement results are presented. Moisture comes from these sources: high water

Card 2/3

Investigation of Insulating Structures of Underground Heating Pipelines

table, surface water, dripping from cover slabs and tunnel walls, sweating within the insulating structure, and leakage in pipelines. To avert moisture penetration, it is recommended that longitudinal draining, proper planning of the route profile, and melt-water draining be arranged. A year-round operating schedule results in considerably lesser insulator moistening than operation with a summer service interruption. Jointly with the Mosenergo Heating System, VTI built a number of experimental sections of two new designs: with centrifuged reinforced-concrete conduit and with two asbestos-cement conduits. Principal feasibility of making cylindrical conduits from foamglass is mentioned; however, no process for manufacturing such conduits is available so far.

M.L.Z.

Card 3/3

SKVORTSOV, A.A., kandidat tekhnicheskikh nauk.

"Insulation of cold-storage plants." M.IA. Shtaerman. Reviewed by A.A. Skvortsov. Teploenergetika 3 no.2:61-63 F '56.(MLRA 9:5) (Cold storage--Insulation) (Shtaerman, Mikhail Iakovlevich)

SKVORTSOV, A.A., kandidat tekhnicheskikh nauk.

Precast reinforced-concrete structures for overhead pipelines.
Elek.sta. 27 no.8:26-29 Ag '56. (MLRA 9:10)

(Pipelines) (Precast concrete)

LYAMIN, Anatoliy Aleksandrovich, inzhener; SKVORTSOV, Aleksandr Aleksandrovich, kandidat tekhnicheskikh nauk; DAVIDYANTS, N.M., inzhener, nauchnyy redaktor; NIKSMYAGI, D.K., redaktor izdatel'stva; TOKER, A.M., tekhnicheskiy redaktor

[Structural components of heating networks made of precast reinforced concrete] Stroitel'nye konstruktsii teplovykh setei iz sbornykh zhelezobetonnykh detalei. Moskva, Gos.izd-vo lit-ry po stroit. i arkhit., 1957. 135 p. (MLRA 10:10)
(Heating pipes) (Precast concrete)

SKVORTSOV, A.A., kand.tekhn.nauk (Moskva)

"Permissible spans in surface pipeline laying;" discussion of the article of M.N.Ruchimskii. Stroi.pred.neft.prom. 2 no.9: 15-18 S '57. (MIRA 12:5)
(Pipelines) (Ruchimskii, M.N.)

SKVORTSOV, A.A., kandidat tekhnicheskikh nauk; BUNIN, V.S., inzhener.

Calculating self-compensation of high pressure steam pipes by means of graphs. Teploenergetika 4 no.9:90-92 S '57. (MLRA 10:8)
(Steampipes)

SKVORTSOV, A.A., kand.tekhn.nauk

Investigation of heat insulation and structural elements. Elek.sta. 28 no.10:35-39 '57. (MIRA 10:11)

(Heating pipes--Testing)

SKVORTSOV, A.A., kand.tekhn.nauk

"Design of supports and anchors for pressurized pipelines" by L. IA. TSikerman. Reviewed by A.A. Skvortsov. Elek.sta. 29 no.5:94-96 My '58. (MIRA 12:3)

(Pipelines) (TSikerman, L. IA.)

AUTHOR: Shpeyer, M.G. (Engineer) SOV/96-59-6-19/22

TITLE: Conference on the Construction of Thermal Systems (Soveshchaniye po voprosam stroitel'stva teplovykh setey)

PERIODICAL: Teploenergetika, 1959, Nr 6, pp 90-91 (USSR)

ABSTRACT: An All-Union Conference on the construction of thermal systems was held in Moscow on the 11th - 13th March; it was convened by the Moscow Directorate of the Scientific-Technical Society of the Power Industry (District Heating Section). Representatives of the Acad.Sci. USSR, GOSSTROY USSR, GOSPLAN USSR, Councils of National Economy, design, operating, and erection organisations, and educational and research institutes participated in the conference. Thirteen reports were read and a number of communications were made. Ye.Ya. Sokolov read a report on 'The present state and future prospects of district heating'. The reports by Engineer S.Ye. Zakharenko of Mosteploset'stroy and Engineer A.A. Gerbko (Mospodzemstroy) dealt with the need for a review of methods of laying heating systems. Engineer A.I. Odnoposov (Glavleningradstroy) described the specially difficult conditions of laying heating systems in Leningrad. The report of Cand.Tech.Sci. A.A. Shvostov of the All-Union Thermal-Technical Institute stressed the need to mechanise the construction of heating systems as far as possible. Engineer A.A. Lyamin of Mosenergoproyekt described the use of ready-made reinforced concrete ducts for the construction of large diameter heat supply pipes. Cand.Tech.Sci. V.P. Vital'yev of ORGRES discussed costs of different methods of making heating systems. Engineer M.G. Shpeyer of Teploelektroproyekt discussed the mechanical strength of different types of heating supply system construction. The Conference noted the need to introduce new types of construction and thermal insulation. The Conference requested various responsible bodies to test a number of new types of construction. Other detailed recommendations were made.
There are no figures, no references.

Card 1/2

Card 2/2

LYAMIN, A.A.; SKVORTSOV, A.A.

Measures for economical use of metals in the construction of heating systems. Vod. i san.tekh. no.1:25-27 Ja '59. (MIRA 12:1)

(Heating pipes)

SOV/96-59-7-19/26

AUTHOR: Skvortsov, A.A., Candidate of Technical Sciences

TITLE: A New Design of Expansion Joints for Heating Systems (Novaya Konstruktsiya kompensatorov dlya teplovykh setey)

PERIODICAL: Teplcenergetika, 1959, Nr 7, pp 88-89 (USSR)

ABSTRACT: A new type of expansion joint has been developed for district-heating systems. The actual joints are made by sealing rings of heat-resistant rubber, held in a shell and sliding on steel pipes. The construction is simple and is illustrated in Figure 1. A table gives the dimensions of the principal sizes in the range. It is claimed that the joint requires no maintenance, that its overall diameter is small and that the sealing effect increases when the pressure of the working substance is raised. If the joints are installed at places where the pipe may shift, protective stops should be provided, as shown in Figure 2. Expansion joints of this type were tested at the All-Union Thermo-Technical Institute on a hydraulic press of special construction. The joint was moved to and fro whilst heated with steam to a temperature of 130 to 135°C. During

Card 1/2

A New Design of Expansion Joints for Heating Systems

the tests a joint of 150 mm diameter made 1 065 cycles, each of 150 mm travel. The joint was in good condition after the test. Other tests that have been made are described. Joints of 150 and 500 mm diameter are now being tested in service on heating systems. So far, the performance appears to be good. A graph of the relationship between the frictional force on the joint and the internal pressure of the heating medium is given in Figure 3. It is intended that these joints should supersede gland-type joints of all kinds on water and low-pressure steam systems. When the joints are made under factory conditions and are of satisfactory quality they may replace all other types of flexible joint or expansion compensators. There are 3 figures and 1 table.

SKVORTSOV, A.A., kand.tekhn.nauk

Pipelines made of non-metallic pipes. Energ. stroi. no.3: 33-38 (13), 1960. (MIRA 14:9)

1. Vsesoyuznyy teplotekhnicheskiy institut imeni Dzerzhinskogo. (Pipe, Asbestos-cement) (Pipe, Glass)

SKVORTSOV, Aleksandr Aleksandrovich. Prinimali uchastiye: BUNIN, V.S., mladsniy nauchnyy sotrudnik; CHUDAYEV, M.G., starshiy tekhnik. MOROZOV, G.N., red.; LARIONOV, G.Ye., tekhn.red.

[Compensating devices of heat piping systems] Kompensatsionnye ustroistva teplofikatsionnykh truboprovodov. Moskva, Gos.energ. izd-vo,1961. 143 p. (MIRA 15:5)
(Heating from central stations)
(Steampipes)

SKVORTSOV, A.A., kand.tekhn.nauk

Heat insulation for underground heating-pipe systems without tunnels. Elek.sta. 32 no.9:40-44 S '61. (MIRA 14:10)
(Steam pipes)
(Insulation(Heat))

SKVORTSOV, A.A., kand.tekh.nauk

"Utilization of plastic pipes" by M.M.Sapozhnikov. Reviewed by A.A. Skvortsov. Gor. khoz. Mosk. 35 no.2:42-3 of cover F '61. (MIRA 14:2)

(Pipe, Plastic) (Sapozhnikov, M.M.)

SKVORTSOV, Aleksandr Aleksandrovich, kand. tekhn. nauk; KOMAROVSKIY, M.F., red.; FREGER, D.P., red. izd-va; GVIRTS, V.L., tekhn. red.

[New compensators with self-packing rings; practice of the All-Union Heat Engineering Institute andof the heating circuits of the Leningrad Administration for Power Economy] Novye kompensatory s samouplotniaiushchimisia manshetami; opyt VTI i teploseti Lonenergo. Leningrad, 1962. 20 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Stroitel'naia promyshlennost', no.4) (MIRA 15:8)

(Heating pipes)

L 15152-65 EWP(e)/EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(b) Pf-4/Pq-4 WH/
JD/HW/WB

ACCESSION NR: AP4049120 S/0182/64/000/011/0037/0039

AUTHOR: Akimenko, A. D.; Kozlov, A. I.; Skvortsov, A. A. B

TITLE: Certain problems in using molten glass for the oxidation-free heating of steel billets

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 11, 1964, 37-39

TOPIC TAGS: steel, heating, molten glass, oxidation free heating, lubricant, forging die, die

ABSTRACT: Experiments in the use of molten window glass as the heating medium and lubricant in steel forging have shown that in the process of heating the steel, the molten glass dissolves the iron oxide. The iron oxide stimulates crystallization in the glass and narrows the temperature range in which it retains its optimal viscosity (140—260 poise). When the iron content of the glass bath exceeds 12—14%, the glass layer on the billet will crystallize at temperatures as high as those of the forging range, causing intensive wear of the forging dies. Under certain conditions the iron content can

Card 1/2

L 15152-65
ACCESSION NR: AP4049120

be increased to 18—20% without any adverse effects. The decarbonization of metal heated in molten glass was found to be local and dependent upon the duration of the heating. Only with prolonged heating does the decarbonization extend to the whole surface of a heated object. Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, MT

NO REF SOV: 005 OTHER: 000 ATD PRESS: 3144

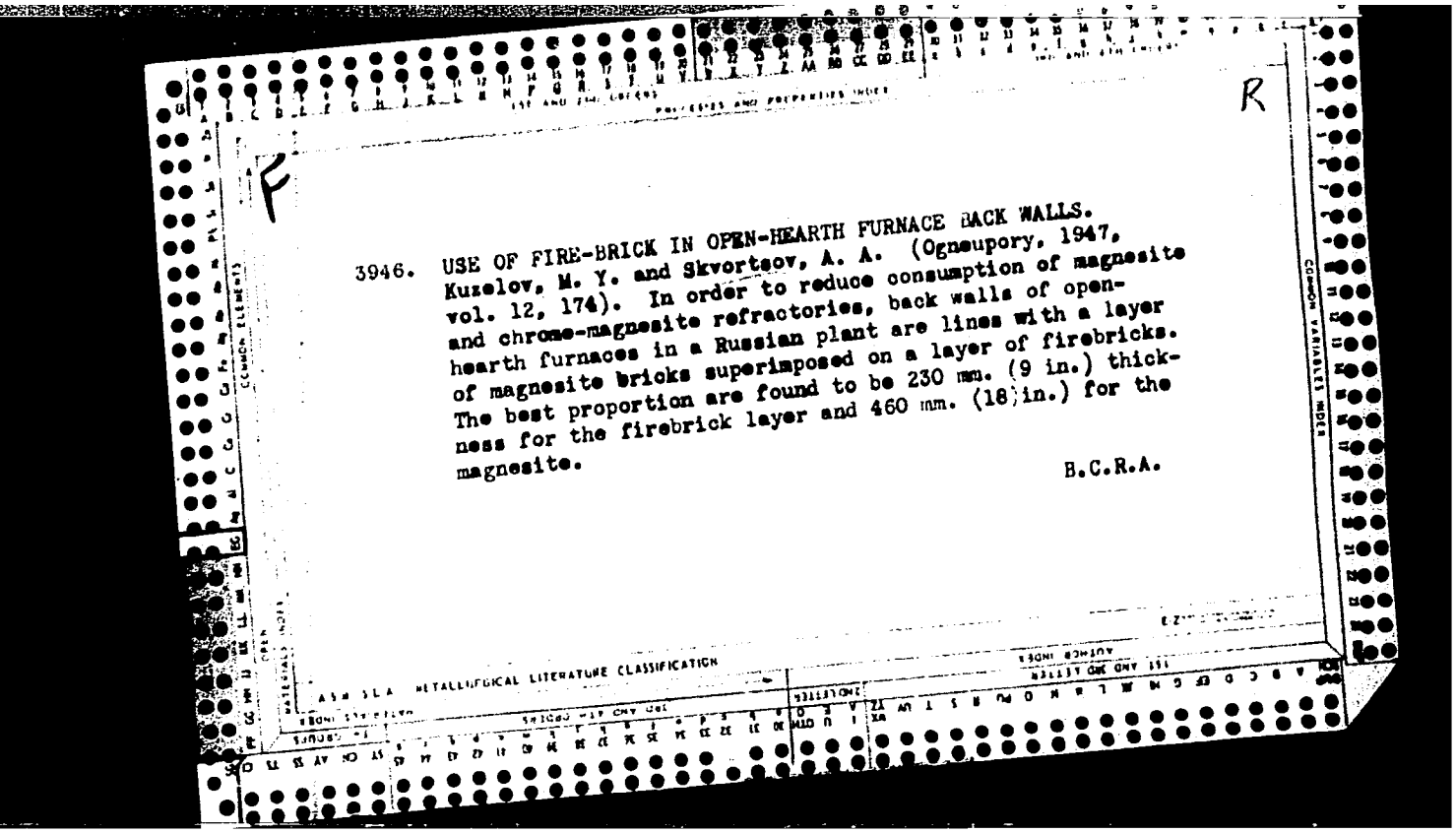
Card 2/2

SKVORTSOV, A. A.

Study of Metal Losses in Continous Reheating Furnaces and Their Effect of Heat Transfer. A.A. Skvortsov (Vestn. Inzhen, Tekhn., 1946,306-314: C.Abs., 1 47,41,4422).--In Russian)

The investigation described concerned the loss of metal due to scale formation on blanks and forgings heated in continuous furnaces and the effect ot the scale on heat transfer. The quantity of scale formed on the heated metal depends on the temp. and time. The scale is not uniformly distributed over the billet or forging, and varies from side to side. Most of the scale formed is different for each section of a continuous furnace. The effect of the scale on heat transfer if insignificant in the preheating section of the furnace, but is considerable in the high-temp. zone.

immediate source clipping



3946. USE OF FIRE-BRICK IN OPEN-HEARTH FURNACE BACK WALLS. Kuzelov, M. Y. and Skvortsov, A. A. (Ogneupory, 1947, vol. 12, 174). In order to reduce consumption of magnesite and chrome-magnesite refractories, back walls of open-hearth furnaces in a Russian plant are lines with a layer of magnesite bricks superimposed on a layer of firebricks. The best proportion are found to be 230 mm. (9 in.) thickness for the firebrick layer and 460 mm. (18 in.) for the magnesite.

B.C.R.A.

SKVORTSOV, A. A.
25591

Opyt Ispolzovaniya Vozmozhnosoti Po Uveli-
cheniyu Proizvoditel' Nosti
Metodicheskoy Pechi.
Trudy Gor'k Industr. In-Ta
Im. Zhdanova, T. VII, Vyp. 1, 1948,
S. 87-100 -- Bibliogr: 6 Nazv.

SO: LETOPIS NO. 30, 1948

SKVORTSOV, A. A.

PA 17/49T36

USSR/Engineering
Furnaces

Nov 48

"Results of Tests on Furnaces Having Revolving Walls," A. A. Skvortsov, Cand Tech Sci, M. Ya. Kuzelev, Engr, 2½ pp

"Vest Mashinostroy" No 11

Describes construction of revolving wall furnace, with three sketches. Trial figures show it is more economical than spectacle furnace for certain work.

17/49T36

SKVORTSOV, A. A.

33158. Opyt Primeneniya Mekhanizhatsii Upravleniya Glavvym Shi-berom Marenovsikh Pechey. (Zavod"Krasnoye Sormovo" Im. Zhonova). Za ekonomiyu Topiva, 1949, NO. 10 C. 34-36

SO: Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

SKVORTSOV, A. A. PA 195T60

USSR/Metals - Cast Iron, Melting May 51

"Peculiarities of the Thermal Process of Melting Cast Iron in a Cupola Furnace With Application of Oxygen," A. D. Akimenko, Engr; A. A. Skvortsov, Cand Tech Sci, "Krasnoye Sormovo"

"Litey Proizvod" No 5, pp 17-19

Describes and analyzes exptl heats in 2 cupola furnaces of 1,120 mm diam with 3 rows of tuyeres, using oxygen to intensify melting process. Concludes that application of oxygen

195T60

USSR/Metals - Cast Iron, Melting (Contd) May 51

in cupola melting is particularly essential for making special cast irons which require high temp of molten metal for improving quality of castings.

195T60

SKVORTSOV, A.A., kandidat tekhnicheskikh nauk.

Economy of metals by the introduction of nonoxidizing methods of heating. (In: Ryzhkov, D.A., ed. Ekonomiia metallov v kuznechno-shtampovochnom proizvodstve. Moskva, 1953, p.47-63.) (MLRA 7:1)
(Forging) (Punching machinery)

SKVORTSOV, A.A.

Hydraulic integrator for solving problems of heating and cooling off of cylindrical bodies, and its use in examining the hardening of steel castings in molds. Lit.proizv. no.7:15-20 Jl '53. (MLRA 6:7)
(Steel castings)

KUZELEV, Mikhail Yakovlevich; SKVORTSOV, Aleksey Anatol'yevich; SMELYAKOV, Nikolay Nikolayevich; ZOBNIN, B.F., kandidat tekhnicheskikh nauk, retsenzent; BORETSKIY, A.A., dotsent, otvetstvennyy redaktor; VOLFYANSKIY, L.M., inzhener, redaktor; GIMMEL'MAN, N.R., inzhener, redaktor; DEMAKOV, A.F., inzhener, redaktor; ZAKHAROV, B.P., inzhener, redaktor; ZVEREV, K.M., inzhener, redaktor; KOKOVINA, A.S., inzhener, redaktor; NESTEROV, B.A., inzhener, redaktor; RAZUMOVA, M.S., inzhener, redaktor; SIDORENKO, R.A., inzhener, redaktor; ROZENBERG, I.A., kandidat tekhnicheskikh nauk, redaktor; DUGINA, N.A., tekhnicheskiy redaktor

[Foundry worker's handbook] Spravochnik rabochego-liteishchika. Izd. 2-oe, dop. i perer. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 634 p. (MLRA 10:4)
(Founding)

SOV/137-58-12-24447

Translation from: Referativnyy zhurnal Metallurgiya, 1958, Nr 12, p 71 (USSR)

AUTHOR: Skvortsov, A. A

TITLE: Improvement in the Design and Functioning of a Large Rotating-hearth Furnace at the 'Krasnoye Sormovo' Plant ('Usovershenstvovaniye konstruktsii i raboty krupnoy pechi s vrashchayushchimsya podom na zavode "Krasnoye Sormovo")

PERIODICAL: Tr. n.-tekhn. o-va chern. metal., 1956, Vol 7, pp 362-371. Comments pp 437-451

ABSTRACT: A description is offered of the design of a ring furnace (F) for heating ingots, and operational data thereon are presented. The inner diameter of the F is 9.35 m, the outer diameter 12 m. The fuel is heavy oil. The heavy oil is atomized by compressed air at 4-5 atm heated to 200°C. The load on the hearth is 280-300 kg/m^2. The time required to heat 280 kg of ingots (600 m diam, 240 mm thick) is 1.6-2 hrs. In the high-temperature zone the F temperature is 1400-1450°; the excess air coefficient is 1.15-1.3. The fuel-oil consumption is 41-50 kg/t, and the efficiency of the F is 42-50%. The temperature regime is controlled automatically by zones. It is pointed out that

Card 1/2

Improvement in the Design and Functioning of a Large Rotating-hearth Furnace (cont.)

the working indices of this F are somewhat higher than those of analogous F made by other plants.

M. G.

Card 2/2

SKVORTSOV, A. A.

6
4E2c

Solidification and Heat Removal Pr[illegible] Continuous
Casting. A. A. Skvortsov, A. D. Akimenko and K. K.
Kuratkov (Stal, 1956, (10), 883 [illegible]) [illegible] The
investigation described on billet solidification and cooling in
continuous casting was carried out in connection with the
adoption of the process at the "Krasnoe Sormovo" works.
Theoretical calculations on the process are complicated by
the fact that heat loss from the billet surface varies in different
parts of the continuous casting installation. A hydraulic
integrator was used for studying solidification in the liquidus-
solidus temperature range which enabled the course of thermal
processes occurring during the solidification and cooling of
flat billets to be studied. Results agreed well with experi-
mental data for surface temperature, thickness of solidified
layer and other factors. By using this integrator the optimal
parameters (e.g. rate of withdrawal of the billet) can be
determined with sufficient accuracy to be useful for designing
new installations. The overall heat transfer coefficient for
secondary jet cooling with a water velocity of 4-5 m/sec is
3000 to 7000 cal/(sq. m. hr. °C). For a billet-surface tem-
perature range of 1000-600° C the coefficient rises appreciably
because of intense evaporation, jet impact prevents a steam
film forming. Decrease in the jet velocity and increase in
surface temperature lead to a considerable lowering of the
coefficient, which is particularly important if circulating cool-
ing systems are contemplated. With "soft" jets steam-film
formation lowers the coefficient. Further improvements are
planned for the integrator.—S. K.

137-1957-12-23417

Translations from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 83 (USSR)

AUTHORS: Madyanov, A. M., Skvortsov, A. A.

TITLE: Determination of the Dimensions of the Crystallization Zone of the Metal in a Mold by Means of a Thermo-hydraulic Analog. (Opredeleniya razmerov zony kristallizatsii slitka v izlozhnitse metodom teplo-gidravlicheskoy analogii)

PERIODICAL: V sb.: Novoye v liteyn. proiz-ve. Nr 2. Gor'kiy, Knigoizdat, 1957, pp 207-221

ABSTRACT: A description of a hydraulic apparatus composed of several vertically arranged cylindrical vessels interconnected with rubber tubing of appropriate flow resistance. On a model scale the vessels simulate the wall thickness of the mold and the dimensions of the ingot. The operation of the apparatus is based on the similarity of the differential equations for thermal conductivity and for the movement of fluid in an array of communicating vessels. Before commencing the operations the apparatus is calibrated, i.e., the magnitude of the BIO criteria for the surface of the cast and mold is established and the Fourier criterion is determined. The

Card 1/2

Determination of the Dimensions of the Crystallization (cont.)

technique of calibration is shown. To simulate the process of the heat transfer from the ingot to the mold, the following values are needed: the radius of the ingot, the coefficients of thermal conductivity on the surface of the ingot and on the exterior surface of the mold, and the initial temperatures of the mold and of the solidifying metal. The simulation technique of the process involves measuring the water levels in the vessels, registering the amount of water passing through the system in a certain time interval, and performing appropriate calculations by employing similarity formulas given in the article. Specific examples are discussed. The readings collected throughout the apparatus are utilized in a graph showing the quantitative change in the zone of crystallization during the solidification of a steel ingot. A comparison between the graph and a schematic representation of the chemical and crystalline non-uniformity of the ingot clearly illustrates the influence of this zone on the structural non-uniformity of the ingot. Compared with computational data the accuracy of the apparatus is 5-6 percent.

V. N.

Card 2/2 1. Metals-Crystallization zone-Determination 2. Thermo-hydraulic analog-Applications

SKVORTSOV, A.A.

18(5) PHASE I BOOK EXPLOITATION SOV/1347

Korotkov, Konstantin Petrovich, Nikolay Pavlovich Mayorov, Aleksey Anotol'yevich Skvortsov, and Anatoliy Dmitriyevich Akimenko

Promyshlennoye primeneniye nepreryvnoy razlivki stali (Industrial Applications of Continuous Casting of Steel) Leningrad, Sudpromgiz, 1958. 150 p. 2,200 copies printed.

Scientific Ed.: Malakhovskiy, G.V.; Ed.: Shaurak, Ye. N; Tech. Ed.: Frumkin, P.S.

PURPOSE: This book is intended for designers and technologists working in the field of the continuous casting of steel. It may also be useful to students at metallurgical institutes and tekhnikums, as well as to engineers and technicians.

Card 1/6

Industrial Applications (Cont.) SOV/1347

COVERAGE: The book gives an account of the experience gained at the "Krasnoye Sormovo" [Shipbuilding] Plant [in Gor'kiy] in the operation of industrial equipment for the continuous casting of steel. It is stated that by 1960 the production of steel in the USSR by this method will increase the annual output of rolled steel by 1,000,000 metric tons, with an expected economy of about 2 billion rubles. Among the advantages cited for this method are the absence of shrinkage cavities and elimination of laborious teeming operations. The "Krasnoye Sormovo" Plant put its continuous-casting installation, said to be the largest of the few existing in the world, into operation in 1955. The plant management is planning another continuous-casting installation, and "many more" Soviet plants are scheduled to be so equipped. The book is based not only on the practice and experience of the "Krasnoye Sormovo" Plant, but also on work done at the Nauchno-issledovatel'skiy institut chernoy metallurgi (Scientific Research Institute of Ferrous Metallurgy) and at the Gor'kovskiy politekhnicheskiy institut (Gor'kiy Polytechnic Institute). No personalities are mentioned. There are no references.

Card 2/6

TABLE OF CONTENTS:

Industrial Applications (Cont.) SOV/1347

AVAILABLE: Library of Congress

GO/rj
4-16-59

Card 6/6

SKVORTSOV, A. A.

PHASE I BOOK EXPLOITATION 1216

Soveshchaniye po teorii liteynykh protsessov. 2d, Moscow, 1956

Zatverdevaniye metallov; trudy soveshchaniya... (Solidification of Metals; Transactions of the Second Conference on the Theory of Foundry Processes) Moscow, Mashgiz, 1958. 532 p. 3,500 copies printed.

Sponsoring Agencies: AN SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya; and AN SSSR. Institut metallurgii.

Ed. (Title page): Gulyayev, B.B., Doctor of Technical Sciences, Professor; Ed. (Inside book): Novikov, P.G., Candidate of Technical Sciences; Ed. of Publishing House: Chernysheva, N.P.; Tech. Ed.: Uvarova, A.F.; Managing Ed. for Literature on Heavy Machine Building: Golovin, S.Ya., Engineer.

PURPOSE: This book is intended for a wide circle of engineers, technicians, and scientists working in the fields of general metallurgy, physical metallurgy, and the production of castings.

Card 1/8
3

Solidification of Metals (Cont.) 1216

COVERAGE: The book is a collection of 29 papers concerned with the determination of fixed patterns of metal solidification and also with the determination of favorable conditions for the production of sound castings. The authors discuss heat phenomena in metallic and sand molds, properties of mold materials, conditions of solidification of castings in shell molds, kinetics of the warming-up of porous bodies (molds), effect of alloy composition on the solidification process, conditions for the development of a zonal structure and of chemical heterogeneity of castings, and other matters of current interest. There are also discussions of the use of model testing and radioactive isotopes for studying solidification. No personalities are mentioned.

TABLE OF CONTENTS:

Card 2/8
3

I. HEAT-TRANSFER PROCESSES IN THE SOLIDIFICATION OF CASTINGS

AUTHOR: Skvortsov, A. A.

SOV/163-58-2-5/46

TITLE: On the Solution of the Solidification Problem of Metals Within Temperature Ranges (K resheniyu zadachi o zatverdevanii metallov v intervale temperatur)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 2, pp. 29-36 (USSR)

ABSTRACT: Some zones or layers are formed in the solidification of metals within temperature ranges:
a/ Inner zone of liquid metals at t_{liq}.
b/ Undercooled zone of the liquid metals where crystallization centers are already formed.
c/ Crystallization zone, where the crystal growth begins under the emission of crystallization heat.
d/ Zone of the complete solidification of metals.
The complete investigation of the solidification process in metals goes along with the determination of the boundary between solid and liquid phase. The solidification of the metals within the temperature intervals was made possible by means of a hydraulic integrator. Its use offers the possibility of cal-

Card 1/2

On the Solution of the Solidification Problem of Metals Within Temperature Ranges

culating various theoretical and practical problems of solidification in casting. The comparison of the results of the solidification of the steel layer in molds of sand-alumina agrees with the values found in experiments. The investigation of the solidification within a temperature range does not only explain the displacement of the limits of the dependence on time but also the position and the width of the crystallization layer in the cross section of the molds. The knowledge of the structure of the casts in dependence on the cooling conditions makes possible the production of molds free of any defects. There are 4 figures, 1 table, and 8 references, 8 of which are Soviet.

ASSOCIATION: Gor'kovskiy politekhnicheskiy institut (Gor'kiy Polytechnical Institute)

SUBMITTED: October 10, 1957

SOV/137-58-10-20651

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 47 (USSR)

AUTHORS: Skvortsov, A.A., Akimenko, A.D.

TITLE: A Hydraulic Model Investigation of the Process of Continuous Casting of Steel (Issledovaniye protsessa nepreryvnoy razlivki stali na gidravlicheskoy modeli)

PERIODICAL: Izv. vyssh. uchebn. zavedeniy. Chernaya metallurgiya, 1958, Nr 3, pp 21-26

ABSTRACT: Hydraulic simulation is used to determine the optimum angle of delivery of the stream into the crystallizer mold and the depth to which the stream penetrates into the metal in accordance with the height of the pouring container above the surface of the metal in the mold, when continuous casting of steel is practiced. When the process of casting from a tundish is simulated, the major criteria to be observed are the Weber and Froude criteria. Upon continuous casting of rectangular billets, the employment of tundishes at ~10° to the vertical, offset from the center of the mold, makes it possible to pour with the surface of the metal uncovered. The simulated test shows that the utilization of tundishes at an angle of 20° may erode the solid

Card 1/2

A Hydraulic Model Investigation of the Process (cont.)

skin forming on the edge of the billet opposite to the tundish. A reduction in the height of fall of the stream from 300 to 100 mm results in an insignificant increase in the depth to which the stream penetrates into the metal. When the stream is introduced below the surface of the metal the penetration of the stream almost doubles. Continuous-steel-casting experience at the Krasnoye Sormovo Plant shows the depth of penetration to be 400-460 mm, the distance between the tundish and the surface of the metal in the mold being 300 mm. This leads to the conclusion that it is possible to use molds < 1500 mm in length. Attention is drawn to the danger of reducing the length of the mold when the stream is introduced beneath the surface of the metal.

N.N.

1. Steel--Casting 2. Castings--Crystallization 3. Castings--Test results

Card 2/2

AKIMENKO, A.D., kand.tekhn.nauk, dotsent; SKVORTSOV, A.A.; kand.tekhn.nauk, dotsent; MAYOROV, N.P., inzh.

Power consumption aspects of continuous steel pouring equipment. Izv. vys.ucheb.zav.; energ. no.5:60-64 My '58. (MIRA 11:8)

1.Gor'kovskiy politekhnicheskiy institut imeni A.A. Zhdanova (for Akimenko, Skvortsov). 2.Zavod "Krasnoye Sormovo" (for Mayorov). (Electric power) (Steelworks--Equipment and supplies)

SKVORTSOV, A.A.

Solidification of a flat carbon steel ingot [with summary in English]
Inzh.-fiz. zhur. no. 9:109-112 S '58. (MIRA 11:10)

1. Politekhnicheskiy institut imeni A.A.Zhdanova, go. Gor'kiy.
(Steel ingots--Metallography)

AUTHOR: Skvortsov, A.A. SOV/136-58-10-17/27

TITLE: Filter-cloth Maintenance Practice at the Chimkent Lead Works (Praktika ukhoda za fil'troval'noy tkan'yu na Chimkentskom svintsovom zavode)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 10, p 78 (USSR)

ABSTRACT: Large quantities of filter cloth are in use in sleeve-filter installations at the Chimkent Lead Works. The author describes briefly filter preparation, exchange, washing and inspection at the works' sintering and cupellation plants. The practice described secured in 1957 a mean efficiency of sleeve filter in the sinter plant in 1957 of 96.5%, the entry dust content being 1.11 and that at the outlet 0.0331 g/nm^3.

ASSOCIATION: Chimkentskiy svintsovyy zavod (Chimkent Lead Works)

Card 1/1

AKIMENKO, A.D., kand. tekhn. nauk, dotsent; SKVORTSOV, A.A., kand. tekhn. nauk, dotsent

Investigating heat transfer in crystallizer equipment for continuous steel casting. Izv. vys. ucheb. zav.; chern. met. no.12:45-50 D '58. (MIRA 12:3)

1.Gor'kovskiy politekhnicheskiy institut.
(Steel ingots) (Heat--Transmission)

SKVORTSOV, A. A.

AUTHORS: Akimenko, A. D., Candidate of Technical Sciences, SOV/122-58-12-25/32
Docent, Barykin, V.I., Docent, Skvortsov, A. A.,
Candidate of Technical Sciences, Docent

TITLE: The Economics of Using Electrical Heating in Forging Shops (K voprosu ob ekonomicheskoy effektivnosti primeneniya elektronagreva v kuznechno-pressovykh tsekhakh)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, Nr 12, pp 64-66 (USSR)

ABSTRACT: The authors take up an article in the January 1958 issue of this journal by V.N. Glushkov who suggests that electrical induction heating of parts for forging is uneconomical. They point out that the relative cost of oil or gas fired furnaces versus electrical heating will vary widely in different regions. The cost of oil in roubles per metric ton is given for five different regions (Table 1). The cost of natural gas is quoted at 180 roubles per ton. The cost of electrical energy is given in Table 2. Here, four different groups are quoted, and the basic cost of electricity varies from .005 to .15 roubles per kwh. When installation costs and total expenditure are taken into account the cost per kwh for 4800 hour use at a use factor of 0.8 is found to vary from .06 to .263 roubles according to group. The cost

Card 1/3

The Economics of Using Electrical Heating in Forging Shops

of factory water, necessary for cooling induction heating loops, is also taken into account. Again, there is considerable difference between plants with their own water supply (.053 roubles/metre^3) and plants taking 'town' water (.46 roubles/metre^3). The specific consumption of electricity per ton of metal heated is quoted between 500 kwh and 600 kwh by different authorities. Remarks are made about the basis for assessing the real quantity of oil used per ton of metal heated. In Table 4, costs per ton of material heated are given for three different cases of heating by oil, and the same cases for heating by induction methods, and also the cost of heating by natural gas. This comparison suggests that, at any rate in the central part of the

The Economics of Using Electrical Heating in Forging Shops

USSR where electricity is cheap, that induction heating can be as cheap or cheaper than oil heating. The cost per ton for heating by natural gas comes out at about three-quarters of that for oil or for electrical heating.
There are 4 tables and 7 references, all Soviet.

AKIMENKO, A.D., kand. tekhn. nauk; MAKUSHIN, A.M., inzh. SKVORTSOV, A.A., kand. tekhn. nauk; KHRIPKOV, A.V., inzh. ; SHENDEROV, L.B., inzh.

Combined secondary cooling of a continuously cast ingot. Stal' 18 no. 6:509-511 Je '58. (MIRA 11:7)

1. Gor'kovskiy politekhnicheskiy institut i zavod "Krasnoye Sormovo."
(Steel ingots--Cooling)

AKIMENKO, A.D., kand. tekhn. nauk; GREKK, V.A., inzh.; KASHCHEYEVA, N.P., inzh. KUZELEV, M.Ya., inzh.; SKVORTSOV, A.A., kand. tekhn. nauk; CHUMAGIN, V.S., inzh.

Utilizing waste nitrogen from oxygen plants as a protective atmosphere for metal heat treatment in furnaces. Vest. mash. 38 no.4: 40-42 Ap '58. (MIRA 11:3)
(Metals--Heat treatment) (Protective atmospheres) (Nitrogen)

SKVORTSOV, A.A.

25(1) PHASE I BOOK EXPLOITATION SOV/1586

Tekhnologicheskiy spravochnik po kovke i ob"yemnoy shtampovke (Handbook on Open and Closed Die Forging) Moscow, Mashgiz, 1959. 966 p. 15,000 copies printed.

Ed. (Title page): M.V. Storozhev; Ed. (Inside book): S.B. Kirsanova, Engineer; Ed. of Publishing House: B.M. Gliner, Engineer; Tech. Ed.: T. F. Sokolova; Managing Ed. for Information Literature (Mashgiz): V.I. Krylov, Engineer.

PURPOSE: The handbook is intended for engineers and technicans working in forging and die forming shops and in engineering design bureaus. It may also be used by teachers and students of technical schools.

COVERAGE: The handbook contains information on processes of forging and hot closed die forming as carried out on various kinds of forging and pressing machinery. Information is given on initial stock, making blanks, quality inspection of forgings and their heat treatment, and on engineering characteristics of basic machinery and mechanization equipment, on die making and on technical-economic indexes and engineering standardization. The authors state that problems of manufacture by forging and press forming which have only been discussed up to now in periodicals and special-

Card 1/24

Handbook on Open and Closed Die Forging SOV/1586

Card 4/24

Handbook on Open and Closed Die Forging

Card 5/24

SOV/163-59-2-22/48

18(3)

AUTHORS: Akimenko, A. D., Skvortsov, A. A.

TITLE: Investigation of the Process of Heat Emission in the Zone of Secondary Cooling in the Plants for Continuous Steel Casting (Issledovaniye protsessa teplootdachi v zone vtorichnogo okhlazhdeniya ustanovok nepreryvnoy razlivki stali)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959, Nr 2, pp 123 - 130 (USSR)

ABSTRACT: In continuous steel casting, the ingot passes three zones of cooling: 1) Cooling in a crystal agent circumcirculated by water, 2) zone of secondary cooling by spraying with water, 3) air cooling by free convection. The present paper investigates the conditions of the second zone which eliminates 50 - 60% of the total heat. Figure 1 shows the temperature course in the ingot during this treatment. The experiments were carried out on a test stand. Table 1 indicates the cooling methods applied (air, water or air-water mixture). The temperature changes were recorded and the heat-transfer coefficients were computed. Figure 2 shows the changes of the heat-transfer coefficients during the observation time, figure 3 indicates the dependence of the mean heat-transfer coefficient on the specific water consumption. The experiments with pure air cooling (Table 3) proved to be uneconomical due to

Card 1/2

Investigation of the Process of Heat Emission in the Zone of Secondary Cooling in the Plants for Continuous Steel Casting

SOV/163-59-2-22/48

a high current consumption for the air supply. The engineers of the "Krasnoye Sormovo" Works suggested a cooling by a two-phase water-air mixture produced in special mixers, which was tested by the Institute mentioned under "Association". The following is ascertained: 1) The method renders possible a continuous supply of the mixture to the nozzles with no separation of phases in the pipelines; 2) the consumption of compressed air is low; 3) the water consumption can be reduced by 35% at the same shape of nozzles; 4) the values of the heat-transfer coefficients of this procedure lie between the values for water cooling and the values for air cooling (Fig 4). The experiments proved the practical applicability of this procedure. There are 4 figures, 3 tables, and 6 Soviet references.

ASSOCIATION: Gor'kovskiy politekhnicheskiy institut (Gor'kiy Polytechnic Institute)

SUBMITTED: May 8, 1958

Card 2/2

SKVORTSOV, A.A., dotsent, kand.tekhn.nauk

Effect of external chills on the solidification of steel castings. Izv.vys.ucheb.zav.; chern.met. 2 no.5:29-33 My '59. (MIRA 12:9)

1. Gor'kovskiy politekhnicheskiy institut. Rekomendovano kafedroy mashin i tekhnologii obrabotki metallov davleniyem Gor'kovskogo politekhnicheskogo instituta.
(Founding) (Steel castings)

S/123/61/000/014/033/045
A004/A101

AUTHOR: Skvortsov, A.A.

TITLE: Formulating and investigating the problem on the solidification and crystallization of metals in the temperature range

PERIODICAL: Referativnyy zhurnal. Mashinostroyeniye, no. 14, 1961, 1, abstract 14G1 ("/Tr./Gor'kovsk. politekhn. in-ta", 1959, v. 15, no.6, 107-126)

TEXT: The author describes a method of investigating the solidification of steel plates under different cooling conditions with the aid of a hydraulic integrator. The fundamental assumptions for the designing of such devices are: the equality of the physical parameters for the solid, the solidifying and the liquid metal, and also that the liberation of the internal solidification heat is uniform in the liquidus-solidus temperature range. The author analyzes the schematics of hydraulic integrators with the aim of selecting the one, which would give the best coincidence of the obtained data of hydraulic simulation with the experimental cooling curves. The macro-structures of flat steel castings are compared to the solidification curves. E. Gini
[Abstracter's note: Complete translation]

Card 1/1

SKVORTSOV, A.A.

PHASE I BOOK EXPLOITATION SOV/5383

Anatoliy Dmitriyevich Akimenko, Konstantin Petrovich Korotkov, Nikolay Pavlovich Mayorov, Aleksey Anatol'yevich Skvortsov, and Lev Borisovich Shenderov

Osvoyeniye neprerayvnoy razlivki stali (Mastering the Process of Continuous Steel Casting) Leningrad, Suapromgiz, 1960. 225 p. 3,700 copies printed.

Scientific Ed.: G.V. Malakhovskiy; Ed.: M.A. Aptekman; Tech. Ed.: R.K. Tsal.

PURPOSE: This book is intended for designers and process engineers of continuous steel-casting plants and for staff members of scientific research organizations engaged in the investigation of the continuous casting process. It may also be used by students specializing in this field of metallurgy.

COVERAGE: The authors discuss results of experience in setting up and putting into operation the first industrial plant for continuous casting of steel at the "Krasnoye Sormovo" Works. Attention is also given to an investigation of the continuous casting process and to the design of the second continuous steel-casting plant which is now under construction at the same works. In 1958 a group of staff members of the Novotul'skiy and Sormovo Works (G.V. Gurskiy, M.D. Gritsun, V.A. Kazanskiy, N.L. Komandin, K.P. Korotkov, N.P. Mayorov,

Card 1/4

N.N. Smel'yakov, and A.V. Khripkov), headed by Academician I.P. Baradin, were awarded the title of Laureate of Lenin's Prize for their work in mastering the continuous steel-casting process. Staff members of the TsNIIChM (Central Scientific Research Institute of Ferrous Metallurgy), the Scientific Research Institute of the former Ministry of the Shipbuilding Industry, the VNIIavtogen (All-Union Scientific Research Institute of the Autogenous Treatment of Metals), and other organizations took an active part in the investigation of the continuous casting process. Heat emission and solidification processes were investigated by the Gor'kiy politekhnicheskiy institut (Gor'kiy Polytechnic Institute). There are 54 references: 52 Soviet, 1 English, and 1 German.

TABLE OF CONTENTS:

SKVORTSOV, A. A.

PHASE I BOOK EXPLOITATION SOV/4865

Kuzelev, Mikhail Yakovlevich, and Aleksey Anatol'yevich Skvortsov

Nagrev metalla pod kovku i shtampovku v plamennykh pechakh (Preheating of Metal for Forging and Stamping in Direct-Flame Furnaces) Leningrad, Sudpromgiz, 1960. 262 p. 5,700 copies printed.

Scientific Ed.: G. V. Malakhovskiy; Editor: Z. V. Ozerova; Tech. Ed.: R. K. Tsal.

PURPOSE: This book is intended for technical personnel and foremen in the forge and press-forging shops. It may also be useful to workers in design and scientific-research institutions, and to students specializing in metalworking in schools of higher education and tekhnikums.

COVERAGE: The book discusses the theory and practice of heating metal in direct-flame furnaces for forging and stamping. Selection criteria temperature ranges in pressworking of metals, and methods for calculation of the heating of steel and nonferrous metal alloys, ingots, and blanks are presented. Regimes and methods of cooling forgings

~~Card 1/6~~