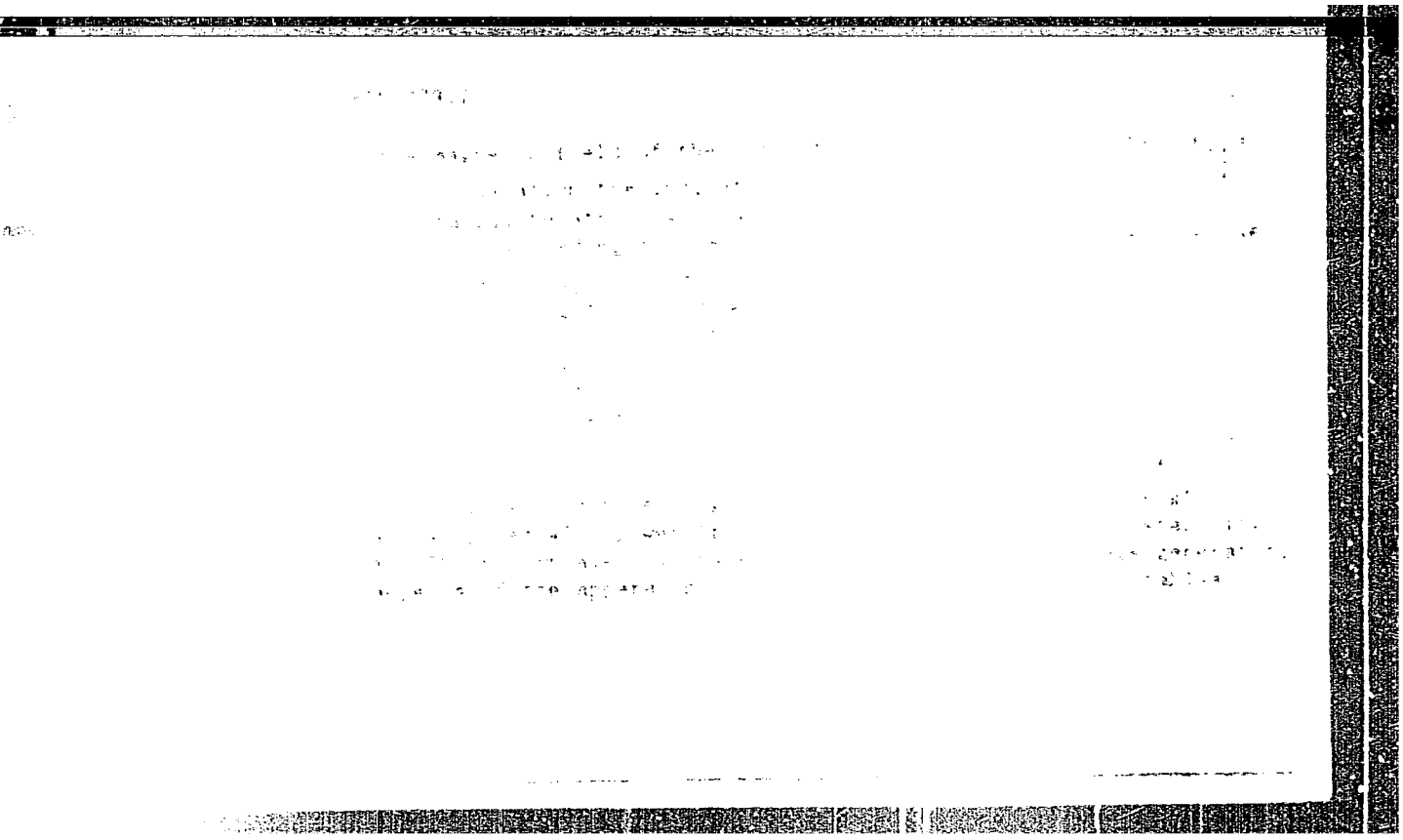
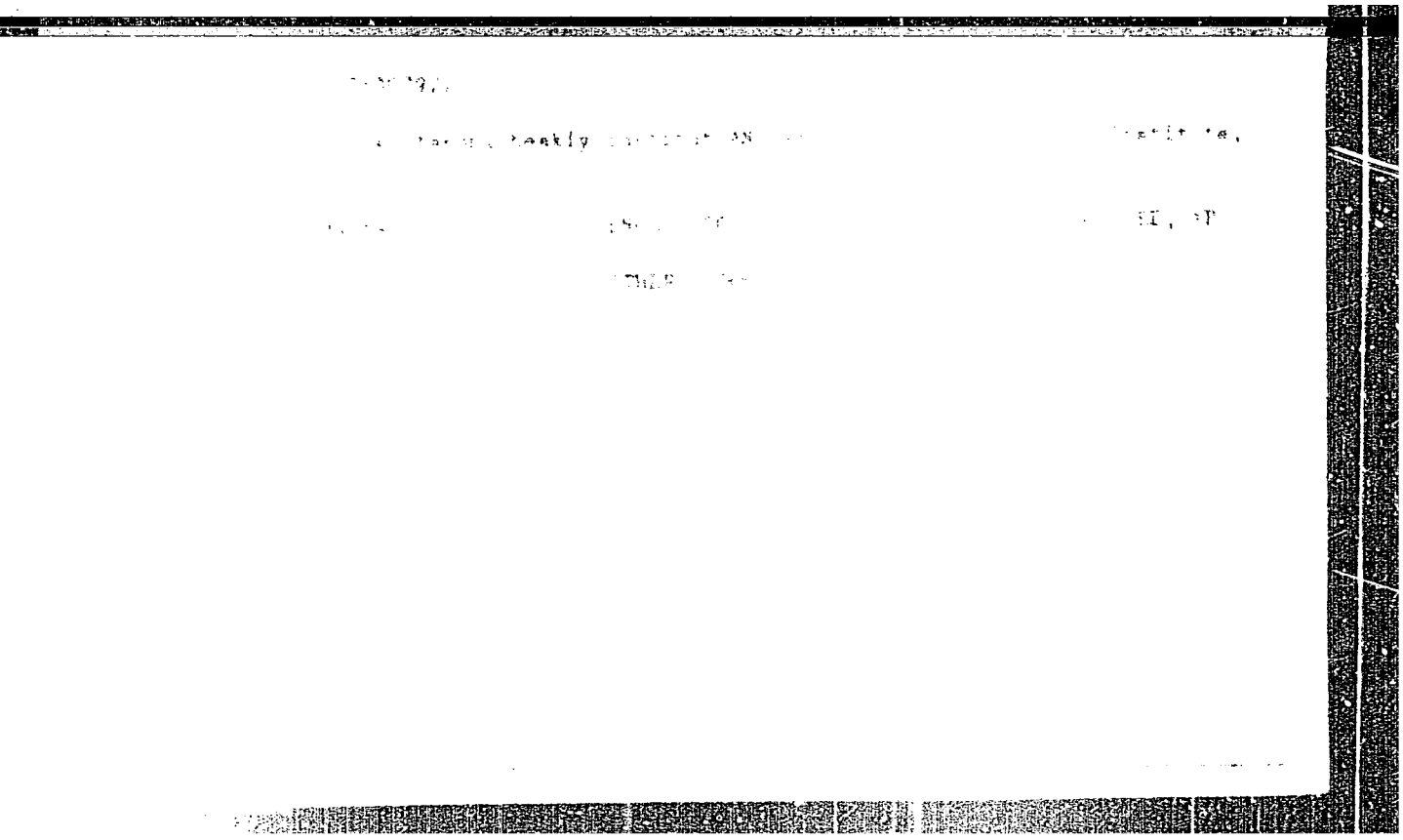


APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R000411430003-5"



GUSARSKAYA, I. L., starshiy nauchnyy sotrudnik; DUDKINA, K. A.

Effectiveness of treating epidemic influenza in children with some new preparations. Pediatriia no.6:24-28 '62. (MIRA 15:6)

1. Iz Leningradskogo pediatricheskogo nauchno-issledovatel'skogo instituta (dir. - zasluzhennyy vrach RSFSR L. S. Kutina) i detskoy infektsionnoy bol'nitsy Leninskogo rayona (glavnyy vrach K. A. Dudkina)

(INFLUENZA) (SERUM--THERAPY)

GUSARSKAYA, I.L., kand.med.nauk; DUDKINA, K.A.; MASLENNIKOVA, L.K., kand. med.nauk; YEPIFANOVA, K.I.

Clinical and epidemiological characteristics of adenovirus infections. Vop.okh.mat.i det. 7 no.4:6-10 Ap '62. (MIRA 15:11)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo instituta detskikh infektsiy (dir. - prof. A.L.Libov), Detskoy infektsionnoy bol'nitsy Leninskogo rayona (glavnyy vrach K.A.Dudkina), Leningradskogo nauchno-issledovatel'skogo instituta epidemiologii i mikrobiologii imeni Pastera (dir. - prof. V.G.Nikitina) i Gorodskoy sanitarno-epidemiologicheskoy stantsii Leningrada (glavnyy vrach V.N.Kovshilo).

(ADENOVIRUS INFECTIONS)

DUDKINA, K.A.

Characteristics of the clinical course of bacterial dysentery for a period of 24 years. Vop.okh.mat.i det. 8 no.3:19-22 Mr '63. (MIRA 16:5)

1. Iz Detskoy infektsionnoy bol'nitsy (glavnyy vrach K.A. Dudkina, nauchnyy rukovoditel' - kand.med.nauk I.L. Gusarskaya) Leninskogo rayona Leningrada i Leningradskogo instituta detskikh infektsiy (dir. - prof. A.L. Libov).

(DYSENTERY)

PETROSYAN, M.G.; DUDKINA, M.A.

Myocardial infarct from data of Kolomna City Hospital for the six years, 1953 to 1958. Vop. klin. pat. no.3:34-44 '61. (MIRA 14:12)

1. Iz Kolomenskoy gorodskoy bol'nitsy (glavnyy vrach P.M.Grishin, zaveduyushchiy terapevticheskim otdeleniyem M.G.Petrosyan).
(KOLOMNA--HEART--INFARCTION)

DUDKINA, M. I. (Prof.); [redacted], G. F. (Prof.)

"Treatment of pneumonia by streptomycin," Klinicheskaya Meditsina (Clinical Medicine), Vol 32, No. 12, December 1954 (Moscow)

Medical Institute in Tshelabinsk.
Chelyabinsk

Comments K-3443, 27 May 55

USSR/Pharmacology and Toxicology - Cardiovascular Agents. V-6

Abs Jour : Ref Zhur - Biol., No 21, 1958, 98545

Author : Glubokov, D.A., Dudkina, M.I.

Inst : Chelyabinsk Medical Institute.

Title : Experiment of Reserpine Application in Treatment of Patients with Hypertensive Disease.

Orig Pub : V. sb.: Materialy Nauchn. konferentsii Chelyab. med. in-ta, posvyashch. 40-letiyu Velikoy Okt. sots. revolyutsii. Chelyabinsk, 1958, 110-112.

Abstract : No abstract.

Card 1/1

SHAPIRO, N.I.; DUDKINA, M.I.; TROFIMOVA, L.V.

Changes in the oxidation-reduction potential in media during submerged culture of paratyphoid bacteria. Zhur. mikrobiol. epid. i immun. 40 no.9:97-101 S'63. (MIRA 17:5)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta vaktsin i syvorotok.

DUDKINA, M. S.

"Natural Conditions Governing the Epidemiology of Malaria Under Conditions in L'vovskaya Oblast and Measures for Improving Sanitary Conditions." Sub 18 Oct 51, Acad Med Sci USSR.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

DUDKINA, M.S.

USSR/Zooparasitology - Ticks and Insects (Disease Transmitters) P-3

Abs Jour : Referat Zhur - Biologii, No 16, 1957, 70194

Author : Dudkina, M.S., Sutyagin, V.S.
Inst : Sb. nauch. L'vovsk. n.i. In-ta epidemiol. mikrobiol. i gigieny. L'vovsk. Un-t 1956, 63-71
Title : Ecology An. bifurcatus in L'vov Region

Orig Pub : See Inst.

Abstract : In the Lvov region, the Anopheles bifurcatus is widely distributed in the habitations of the raised hilly region where it constitutes by day count 13-16% of the total number of mosquitoes. Hatching places- spring and subsoil fed, temporary rain puddles with a T. of 17-23 deg C. Larvae of all ages hibernate (mainly III) in unfrozen swampy areas of streams and fish-ponds. In the course of a season there are 3-4 generations; there is no decrease in the summer.
In cool, moist years, the large number of mosquitoes is

Card 1/2 - 34 -

Abs Jour : Referat Zhur - Biologii, No 16, 1957, 70194

noted in May, June, July and September; in dry years- May, August and September. During the day the females in the places of habitation, are predominantly in the early stages of the digestive process. Only a small portion of the population is capable of an autogenous development of ovaries. In the case of L'vov where the nidus of hatching are located near the city, these mosquitoes may play a considerable role in transmitting malaria.

DUDKINA, M.S.

Effect of annual draining of the fish pond in the town Ivan-Franko, Lvov Province, on larval biotopes and quantities of Anopheles mosquitoes. Dop. ta pov. L'viv. un. no.7 pt.3:125-128 '57.
(MIRA 11:2)

(Ivan-Franko--Fish ponds)
(Mosquitoes--Larvae)

DUDKINA, M.S.

AUTHOR GLUSHCHENKO P.A., GUTSEVICH A.V., DUDKINA M.S. 20-5-67/67

TITLE Mosquitos As Vectors of the Virus of Lymphocytary Horiomeningitis in the Western Part of the Ukraine.
(Issledovaniye komarov kak perenoschikov virusa limfotsitarnogo khoriomeningita na zapade Ukrainy -Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 5 pp 1181-1183 (U.S.S.R.)

Received 7/1957 Reviewed 8/1957

ABSTRACT The present work endeavored to explain the problem of the eventual role of misquitos as vectors of neurotropic viruses. A laboratory basis was established at Stryj in the district of Drohobycz. The swarming of mosquitos of the Aëdes species had already ceased or was about to end which work was being carried out in the fields (July 25.-Aug. 12, 1956). Nine kinds of the Aedes species, 4 kinds of Anopheles, 2 Culex and 1 Mansonia were found. As all virus infections deposited by arthropodes have a natural focal character, the mosquitos were studied under natural conditions i.e. far from settlements, in forests,. 75% of the total amount of mosquitos which were caught on man and by means of nets are of the 4 kinds of the Aedes species. The remaindes was found only in small numbers. The reproduction of the viruses deposited by mosquitos is, as a rule, only possible at hight temperatures. Therefore, investigations were carried out on days when morning temperature (8 a.m.) was 11/19° and afternoon temperature (4 p.m.) 16-25°. Up to now the transovarial deposition was not determined with certainty. It is probable that the virus could only be isolated from mosquitos which had gone through at least one gonotrophic cycle. Also water containers were investigated in order to be able to judge the age of the mosquitos, and the

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Mosquitos As Vectors of the Virus of Lymphocytary Horiomeningitis in the Western Part of the Ukraine. 20-5-67/67

physiological age(according to Detinova and Polovodovya)was determined.In 1924 mosquitos were examined virusologically.A suspension was produced from desinfected mosquitos which was introduced into the brain of white mice.19 groups of viruses were isolated from 43 lots of mosquitos investigated.The intercerebral introduction of the species Aedes communis and Mansonia richiardii caused illness and death of mice.All kinds turned out to be successfully filterable.The disease was of one single type.The diseased animals were passive,on the occasion of acoustic irritation or when they were picked up by their tail they reacted in a characteristic way: tonic spasms developed which brought the animal into a typical position: the forelimbs were pressed to the body whilst the hindlimbs stretched out straight to the tail.In 1954 the first mentioned author had isolated a virus strain 17-MK from the Ixodes ricinus tick which was found to be identical with that of the lymphocytic horiomeningitis;The mosquitos collected now were from the same places.This fact and the typical features of the illness of white mice offer the temporary conclusion that the mosquito strains also belong to this virus.The experimental deposition of the tick virus by mosquitos was achieved by Soviet scientists.We therefore can probably draw the conclusion that the mosquitos,besides the ticks,play a role in the natural virus centres in the case of virus circulation.
(With 2 tables, 3 citations from Slavic publications).

Card 2/3

Mosquitoes As Vectors of the Virus of Lymphocytary Horiomenin-
gitis in the Western Part of the Ukraine. 20-5-67/67

ASSOCIATION Sanitary-Epidemiologic Department n.28 (Lemberg)Arma-Medical Academy "S.M.KIROV"-Lemberg Institute for Epidemiology and Microbiology.
PRESENTED BY PAVLOVSKIY E.N.,Member of the Academy
SUBMITTED 14.2.1957
AVAILABLE Library of Congress
Card 3/3

DUDKINA, M.S.

Ecology of Anopheles bifurcatus in L'vov Province. Med. paraz. i paraz. bol. 27 no.2: 225-227 Mr-Ap '58 (MIRA 11:5)

1. Iz L'vovskogo instituta epidemiologii i mikrobiologii.
(MOSQUITOES,
Anopheles bifurcatus, ecol. (Rus))

DUDKINA, N.K., starshaya med.sestra

Care of plaster casts worn by children in treating congenital dislocation of the hip. Med.sestra 17 no.10:39-40 O '58 (MIRA 11:11)

1. Iz otdeleniya detskoy khirurgii, ortopedii i travmatologii oblastnoy klinicheskoy bol'nitsy Mukachevo, Zakarpatskaya oblast'.
(HIP JOINT—DISLOCATION)
(PLASTER CASTS, SURGICAL)

ZHURAVLEV, Ye.F.; SHEVELOVA, A.D.; DUDKINA, S.Y.

Equilibrium of the liquid phases in the system isobutyric acid - pyramidon - water. Izv.vys.ucheb.zav.; khim.tekh. 3 no.4:620-624 '60. (MIRA 13:9)

1. Permskiy gosudarstvennyy universitet im. A.M. Gor'kogo, kafedra neorganicheskoy khimii.
(Isobutyric acid) (Aminopyrine) (Systems (Chemistry))

DUDKINA, T.

Fulfill the seven-year plan in five years. Stroitel' no.6:22-23 Je '61. (MIRA 14:7)
(Rostov-On-Don—Construction industry)

DUDKINA, V .K., SOLOVYEV,V.D. and RITOVA, V.V.

"Significande of Passive Immunity to Influenza in Infants."

Titres of influenza A and B antibodies were determined in blood samples taken shortly after birth from 200 mothers and their 200 infants; the agglutination-inhibition method was used. The findings were identical in each mother and infant; 40 sera contained A antibodies, 42 B , and 44 both A and B; the remainder contained neither. The average titre in the infants' sera was 1 in 40 (53 cases). The placental transmission of ifluenzal antibodies was thus clearly demonstrated. The titre in the second month of life was determined in 89 infants; a general fall was noted, to zero in33 cases. By this time 8 cases of influenza had occured amongst these ifants (9%), whereas 10 (23°2%) had occured in a comparable group of 43 infants who had no i influenzal antibodies at birth. In an investigation carried out on 46 infants at the age of 7 morths, it was found that antiboties were present in only 5 instances (1°8%), showing that passive immunity had largely disappeared by this age.

D. J. Bauer

/Pediatriya/ No. 5, 28-35, Sept.- Oct., 1949.

Abstracts of World Medicine Vol. 7 1950. No.5, 28-35, Oct., 1949.

DUDKINSKAYA, Ye.M.

Flotation reagents from camphor and oleoresin-turpentine production wastes. Trudy Khim.-met. inst. Sib. otd. AN SSSR no. 13:55-73 '59.
(MIRA 14:1)
(Flotation) (Wood-using industries--By-products)

DUDKO, A., inzh.-kapitan

Checking the control board of a radio compass. Av. i Kosm. 47
no.12:77-78 D '64 (MIRA 18:1)

DUDKO, A., inzh.-kapitan

Ahead of schedule. Av. i kosm. 47 no.3:62-64 Mr '65. (MIRA 18:3)

DUDKO, A.A [DUDKO, O.O.]

Sensitiveness of the causative agents of pasteurellosis in livestock to antibiotics. Mikrobiol.zhur. 20 no.2:33-39 '58 (MIRA 11:8)

1. Z kafedri mikrobiologii Kiivs'kogo veterinarnogo instytutu.
(ANTIBIOTICS)
(PASTEURELLA)

DUDKO, A.A., insh.; KOLKER, I.Ya., insh.

Automated crushing and grading plant. Stroi. mat. 7 no.4:20-23 Ap '61. (MIRA 14:5)
(Crushing machines) (Automation)

LOGAK, L.I., insh.; DUDKO, A.A., insh.

Crushers with automatic feed regulation. Mekh. stroi. 18 no.6:23-25 Je '61. (MIRA 14:7)
(Crushing machinery)

LUDKO, A.A., inzh.

All-purpose bulldozer-mounted loaders. Avt.dor. 22 [i.e.23] no.9: 12-13 S '60. (MIRA 13:9)
(Loading and unloading) (Bulldozers)

DUDKO, A.A., inzh.; KOLKER, I.Ya., insh.

Organization of strip mines near the right of way road construction project. Avt. dor. 24 no.10:8-11 O '61. (MIRA 14:11)
(Strip mining) (Road materials)

KOLKER, I.Ye.; DUDKO, A.A.

New equipment for working pits along the road. Avt.dor. 25 no.1:16-19 Ja '62. (MIRA 15:2)
(Road machinery)

VOLKOV, V.T.; DUDKO, A.A.; LEBEDEV, V.P.; LIPGART, B.K.; MIKHAYLOV, B.V., kand.tekhn.nauk; MIKHAYLOV, V.A., kand.tekhn.nauk; REKUNOV, V.F.; SAVEL'YEV, N.P.; SOROKIN, V.V.; KHARIN, A.I. kand.tekhn.nauk; Prinimali uchastiye: IVANOV, N.A., kand.tekhn.nauk; INOKOVA, O.L.; GOMOZOVA, N.A., red.; NAUMOVA, G.D., tekhn.red.

[Mechanization and automation in the rock products industry] Mekhanizatsiia i avtomatizatsiia v promyshlennosti nerudnykh stroitel'nykh materialov. [By] V.T.Volkov i dr. Moskva, Gosstroiizdat, 1963. 353 p. (MIRA 17:3)

DUDKO, A.A., inzh.; KLUSHANTSEV, B.V., inzh.

Mobile crushing and grading plants with percussion crushers. Stroi. mat. 9 no.4:38-40 Ap '63. (MIRA 16:5)
(Crushed stone industry—Equipment and supplies)

DUDKO, A.A., inzh.

Single-unit movable crushing and sorting equipment. Mekh. stroi. 20 no.11:25-29 N '63. (MIRA 17:1)

DUDKO, A.A., insh.

Increase in cube-form grains in the output of cone-type crushers.
Stroi. mat. 11 no.10:12-14 O '65. (MIRA 18:10)

ACC NR: AP7004300 (N) SOURCE CODE: UR/0125/67/000/001/0059/0062

AUTHOR: Mcchev, V. S.; Dudko, A. D.

ORG: Institute of Electric Welding im. Ye. O. Paton, AN UkrSSR (Institut elektrosvarki AN UkrSSR)

TITLE: Welding with an arc rotating in a magnetic field

SOURCE: Avtomaticheskaya svarka, no. 1, 1967, 59-62

TOPIC TAGS: welding equipment, welding gun, arc welding, magnetic field, welding / A-1029 welding gun

ABSTRACT: The technology of rotary-arc welding (based on the use of an electrical arc rotating in a transverse magnetic field between the nonconsumable electrode and the product) has certain distinguishing features. First, the rate of motion of the arc does not equal the rate of fusion of the metal, i.e. the welding rate, but amounts to 10-25 m/sec. Second, as revealed by oscillographic studies of the welding process with simultaneous recording of the photocurrent to determine the rate of motion (each photocurrent peak corresponds to a single revolution of the arc), the arc rotates uniformly for some time following the excitation while the metal does not yet melt. As the electrode and product become heated, the number of revo-

 UDC: 621.791.75:537.523.5:538.12.001

lutions of the arc somewhat decreases and becomes irregular. Since the arc speed greatly exceeds the melting rate of the metal, during a single revolution a very small segment of the metal will be melted. Subsequently the extent of the melted segment increases until a continuous weld puddle forms over the entire perimeter of the product. Thus, another distinguishing feature of the rotating arc lies in that the weld puddle encompasses the entire perimeter of the parts being welded. Hence also the crystallization of the weld metal occurs uniformly along the entire perimeter. Further, in the process of melting of the edges of the product the weld-puddle metal is impelled by the rotating arc to move in the same direction as that of the arc. This is the third distinguishing feature of rotary-arc welding, and it represents a shortcoming of this method, since it leads to surface rippling. The optimal distance between the electrode and the product in rotary-arc welding should be 2-2.5 mm. The Ye. O. Paton Institute of Electric Welding has developed a special welding gun, the A-1029, for welding tubes onto tube sheets by means of an arc rotating in a radial magnetic field. Normally these tubes must be manually welded onto tube sheets over a period of time lasting from 15 to 30 sec per tube depending on its diameter (18-35 mm), wall thickness (0.3-2 mm and type of joint). The use of the A-1029 welding gun reduces the welding time to 2.5-6 sec. Orig. art. has: 3 fig., 1 table.

SUB CODE: 13, 11, 20/ SUBM DATE: 18Jan66/ ORIG REF: 005

DUDKO, Andrey Yevstakhiyevich

[Sverdlov cotton collective farm] Khlopkovodcheskii kolkhos imeni Sverdlova. Tashkent, 1955. (MIRA 13:8)
(Andizhan District--Cotton growing)

DUDKO, ANDREY YEVSTAF'YEVICH

DUDKO, Andrey Yevstaf'yevich; MEDNIS, Maksimilian Petrovich; CHUMACHENKO, Ivan Nikolayevich; KOTIKOVA, Vera Nikolayevna; BESEDIN, P.N., kand. sel'skokhozyaystvennykh nauk, red.; ZHURAVLEV, B.S., red.; DEMIDOVA, L.F., tekhn.red.

[Cotton cultivation practices and the economic effectiveness of checkrowing] Agrotekhnika i ekonomicheskaia effektivnost' kvadratno- i priamougol'no-gnezdovykh posevov khlopchatnika. Pod red. P.N.Besedina. Tashkent, Gos.izd-vo Uzbekskoi SSR, 1956. 90 p. (MIRA 10:12)

(Cotton growing)

Country : USSR M
Category : CULTIVATED PLANTS. COMMERCIAL. Oleiferous. Sugar-Bearing.
Abs. Jour. : REF ZHUR-BIOL.,21.1958,NO-96040
Author : Dudko, A. Ya.
Institut. : AS Uzbek SSR
Title : Methods of Square-Pocket Planting of Cotton and Their Effectiveness.

Orig. Pub. : V sb.: Ref. nauchno-issled. rabot po khlokovodstvu. Tashkent, AN UzSSR, 1957, 51-60

Abstract : It has been demonstrated by experiments conducted at the stations of the All-Union Cotton Scientific Research Institute and other scientific institutions that the systems of placing plants in the square-pocket planting of cotton should be differentiated according to natural conditions and the varieties. The most widely spread-out should be planted in square-pockets of 50 x 50 cm. The 45 x 45 cm layout is expedient only on plots at a slant, as well as on thin soil with close underlying gravel. On highly fertile soil with close

Card: 1/2

Country : M
Category : CULTIVATED PLANTS. COMMERCIAL

Abs. Jour. : REF ZHUR-BIOL.,21,1958,NO-96040

Author :
Institut. :
Title :

Orig. Pub. :

Abstract : fresh water tables the most successful results were gotten by the schemes 60 x 60 and 60 x 45 cm. The optimum number of plants per hill should not exceed 2-3 in the 50 x 50 and 45 x 45 cm layouts, and not more than 3 in the 60 x 60 and 60 x 45 cm schemes. Leaving 4 plants in even the widest square of 60 x 60 cm produces a drop in yield. --N.L. Klyachko-Gurvich

Card: 2/2

ZOL'NIKOV, S.M., kand.med.nauk; PARFENOV, A.P.; DUDKO, A.M.; VOINOVA, I.I.

Basal anesthesia in patients with serious diseases of the cardiovascular system. Klin.khir. no.9:45-49 S '62. (MIRA 16:5)

1. Institut serdechno-sosudistoy khirurgii AMN SSSR (nauchnyy rukovoditel' - akademik A.N. Bakulev). Adres Zol'nikova: Moskva, Leninskiy prosp., d.8, Institut serdechno-sosudistoy khirurgii AMN SSSR.
(ANESTHESIA) (CARDIOVASCULAR SYSTEM—DISEASES)

S/081/61/000/021/032/094
B101/B147

AUTHORS: Kosmach, V. V., Danil'chenko, V. R., Dudko, A. N.

TITLE: Automatic sampler for cement

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1961, 251, abstract 21I84 (Tsement, no. 1, 1961, 27 - 28)

TEXT: An automatic apparatus for taking cement samples from the mill was installed at the sementnyy zavod "Oktyabr'" ("Oktyabr'" Cement Plant). It has a master clock giving every five minutes a pulse for switching on the slave (S). The latter pushes the sampler into the mill flow, holds it there for 5 sec to be filled with material, withdraws it, and fills the sample into a special small bin. The S used is the column of the КДУ (KDU) remote-control apparatus of the electronic control of the ВТИ(VTI) system. It is pointed out that this unit may be also used for taking samples of other powdered materials. [Abstracter's note: Complete translation.]

Card 1/1

DUDKO, A.P.

Measuring the stock level in buffer tanks and headboxes. Bum. prom. 34 no.2:18 F '59. (MIRA 12:4)

1. Zhidachevskiy kartonno-bumazhnyy kombinat.
(Woodpulp industry--Equipment and supplies)
(Liquid level indicators)

DUDKO, D. A.

USSR/Welding - Methods
Screws

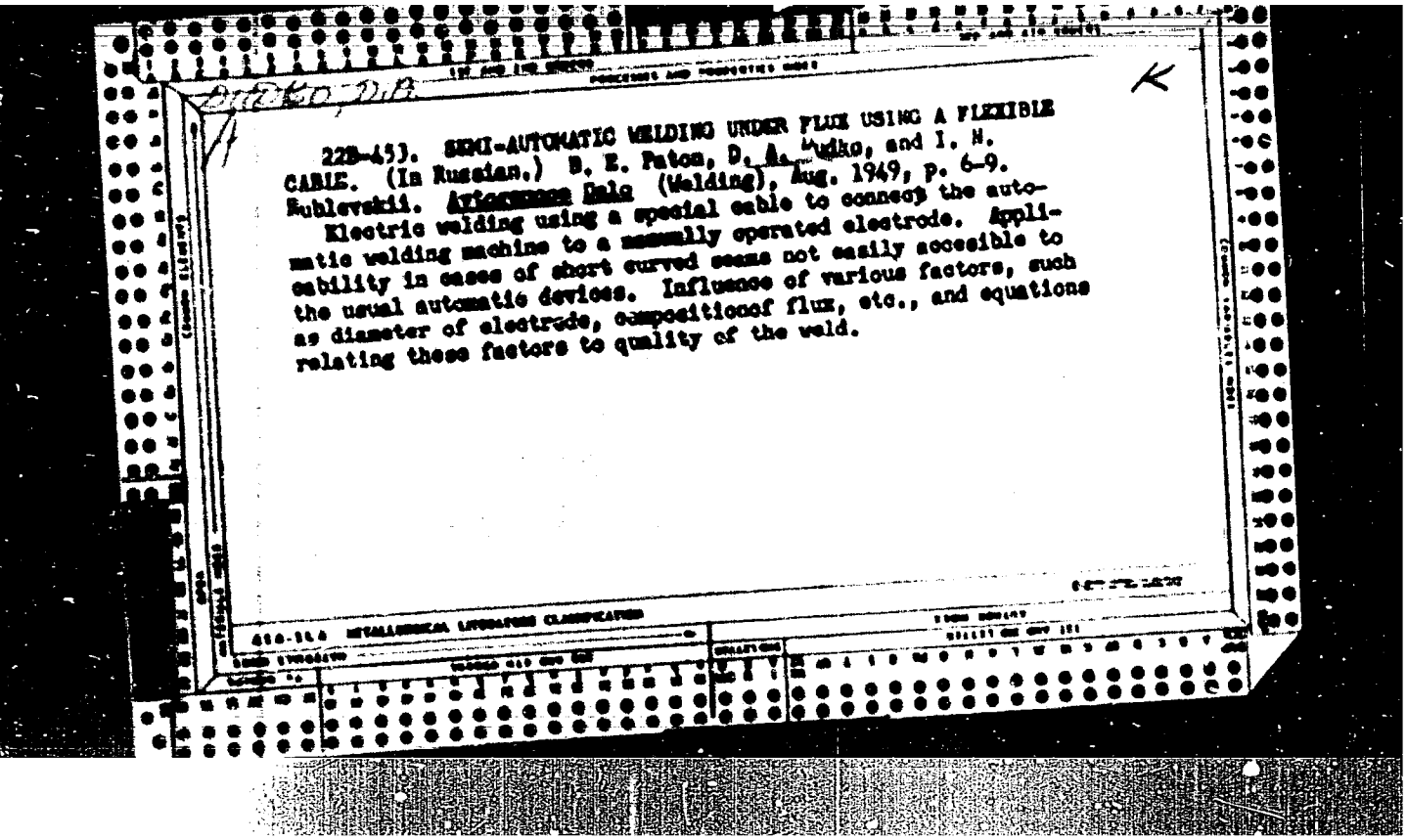
Jun 1947

"Automatic Welding of Screws," N. G. Ostapenko, Yu. A. Sterenbogen, D. A. Dudko, 4 pp

"Avtogennoye Delo" Vo 6

Description of a method, with operating data and photographs, of welding screws with a device with a pistol handle.

PA 14T2



22B-453. SEMI-AUTOMATIC WELDING UNDER FLUX USING A FLEXIBLE CABLE. (In Russian.) B. E. Paton, D. A. Rudko, and I. N. Rublevskii. Avtogennoe Delo (Welding), Aug. 1949, p. 6-9.

Electric welding using a special cable to connect the automatic welding machine to a manually operated electrode. Applicability in cases of short curved seams not easily accessible to the usual automatic devices. Influence of various factors, such as diameter of electrode, composition of flux, etc., and equations relating these factors to quality of the weld.

AID P - 5255

Subject : USSR/Engineering

Card 1/1 Pub. 11 - 6/15

Authors : Dudko, D. A. and I. K. Pokhodnya (Electrowelding Institute im. Ye. O. Paton)

Title : Resistance slag welding of parts of large cross-section area.

Periodical : Avtom. svar., 4, 70-75, Ap 1956

Abstract : A new method of resistance slag welding of large steel bars and rods is described by the authors. This new method was developed by the Electrowelding Institute im. Ye. O. Paton. Two tables, 7 photos and 1 drawing; 3 Russian references (1949-53).

Institution : As above

Submitted : No date

PATON, B.Ye.; DUDKO, D.A.

Welding in Czechoslovakia. Avtom. svar. 10 no.1:103-116 Ja-F '57. (MLRA 10:4)

1. Chlen-korrespondent Akademii nauk USSR, Institut elektrosvarki im.

DUDKO, D.A., kandidat tekhnicheskikh nauk; POTAP'YEVSKIY, A.G., inzhener.

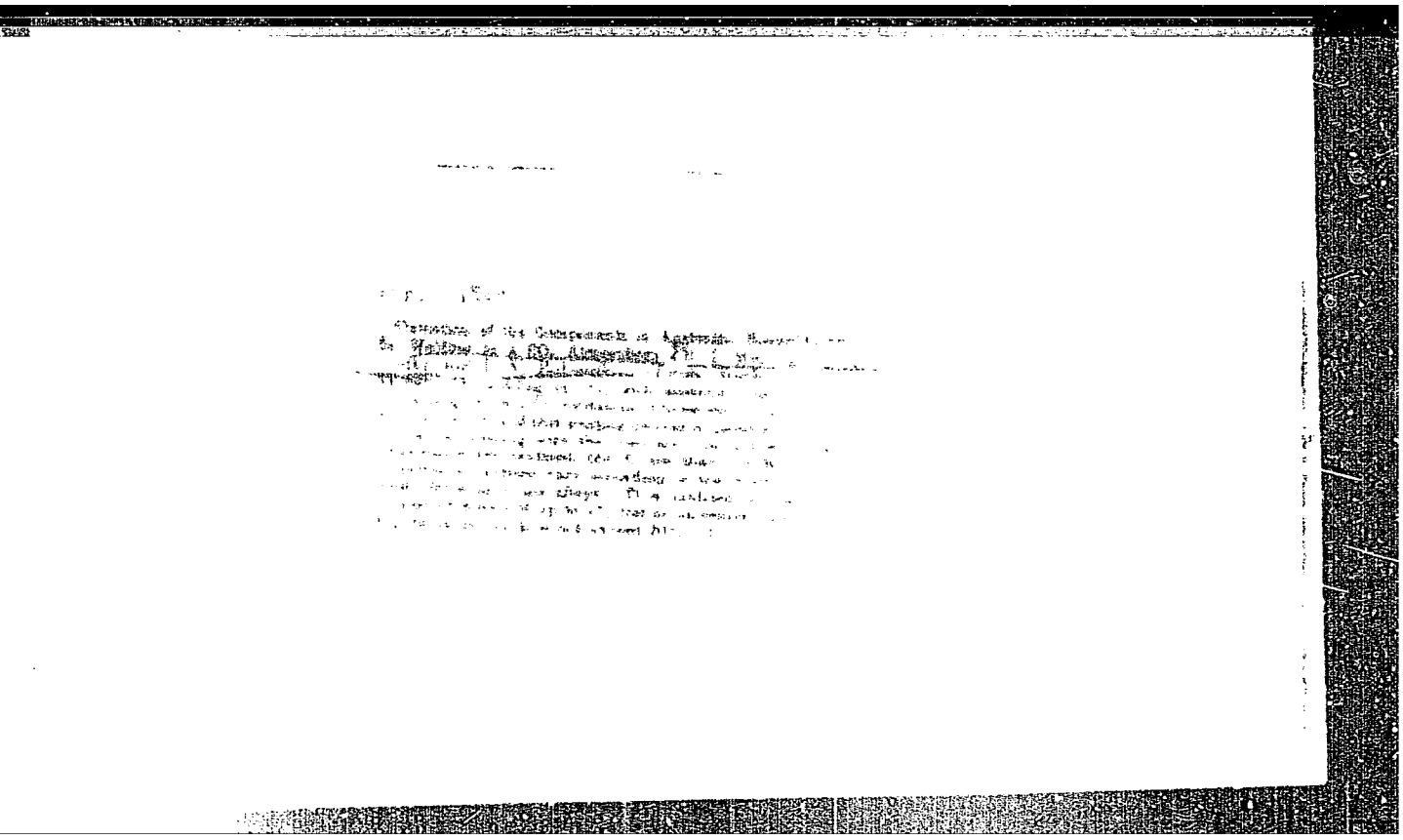
Automatic welding of small-diameter ring joints in an atmosphere of carbon dioxide. Avtom.svar. 10 no.3:55-57 My-Je '57. (MLRA 10:8)

1.Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki imeni Ye.O. Patona Akademii nauk USSR.
(Electric welding)
(Protective atmospheres)

DUDKO, D.A., kandidat tekhnicheskikh nauk; STERENBOGEN, Yu.A., kandidat tekhnicheskikh nauk; POTAP'YEVSKIY, A.G., inzhener.

Multiple pass, thick metal welding in a carbon monoxide shielded atmosphere. Avtom.svar. 10 no.3:58-63 My-Je '57. (MLRA 10:8)

1.Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki imeni Ye.O. Patona Akademii nauk USSR.
(Electric welding)
(Protective atmospheres)



DUDKO, D.A., kandidat tekhnicheskikh nauk; VINOGRADSKIY, F.M., inzhener.

Electric welding in a gas protected atmosphere with forced formation of joints. Avtom.svar. 10 no.3:118-122 My-Je '57. (MLRA 10:8)

1.Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki imeni Ye.O. Patona Akademii nauk SSSR.
(Electric welding)
(Protective atmospheres)

Dudko, D.A.

DUDKO, D.A.; RUBLEVSKIY, I.N.

Participation of electrode and base metal in metallurgical reactions during automatic welding under flux. Avtom. svar. 10 no.5:56-60 S-O '57. (MIRA 10:12)

1. Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O. Patona An USSR.
(Electric welding) (Chemistry, Metallurgic)

DUDKO, D.A.; KUBLANVSKIY, I.N.; CHERNOSA, D.F.

Peculiarities of hydrogen behavior in the automatic welding under flux process. Avtom.svar. 10 no.6:28-34 N-D '57. (MIRA 11:1)

1.Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O. Patona AN USSR.
(Electric welding) (Hydrogen)

DUDKO, D.A.; VINOGRADSKIY, F.M.; YEGOROV, S.V.

Sectional welding device for automatic welding of gas pipeline sections in field conditions. Avtom.svar. 10 no.6:93-94 N-D '57. (MIRA 11:1)

1.Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki im. Ye.O. Patona AN USSR.
(Pipelines--Welding)
(Electric welding--Equipment and supplies)

DUDKO, D.O., kandidat tekhnicheskikh nauk.

Automatic butt welding of pipes that cannot be rotated. Mov. tekh.i pered.op.v stroi. 19 no.4:5-6 Ap '57. (MLRA 10:7)
(Pipe, Steel--Welding)

AUTHORS: Dudko, D.A., and Rublevskiy, I.N. SOV 125-58-3-10/15

TITLE: The Effect of the Kind of Current and Polarity on Metallurgical Processes in Electric Slag Welding (Vliyaniye roda toka i polyarnosti na metallurgicheskiye protsessy pri elektroshlakovoy svarke)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 3, pp 69-78 (USSR)

ABSTRACT: Although peculiarities of metallurgical processes in electric slag welding have been previously investigated [Ref 1-3], some facts could not be explained, and new investigations were needed. The article deals with the effect of the kind of current and polarity on metallurgical processes in electric slag welding and gives detailed description of a series of experiments with electric slag welding on a.c., d.c. and inverse polarity current. The following conclusions were made: 1) the most important effect of the electrolysis of slag in welding on d.c. and a.c. of commercial frequency is the gas liberation on electrodes, which affect the metallurgic reactions and the welding process, including the droplet transfer of electrode metal and the shape of the metal bath; 2) the transfer of additional elements in electric slag welding depends on the kind of current and polarity. In common welding technology, the strongest trans-

Card 1/3

The Effect of the Kind of Current and Polarity on Metallurgical Processes in Electric Slag Welding

fer of Mn from electrode metal into slag (or, accordingly the least transfer of Mn from the slag into the weld metal) occurs in welding with d.c. of reversed polarity when oxygen intensively approaches the electrode metal drops and oxidizes additional elements. Minimum oxidation of Mn and C from electrode metal occurs in welding on d.c. of direct polarity, when oxygen does not contact the surface of the drops; 3) favorable conditions for developing reactions on the border of the slag and the metal bath occur, in particular, in the case of welding with maximum amplitudes and high frequency of oscillations of one of the electrodes; 4) it was stated that high-power electric slag welding with cooled non-fusing metal electrodes can be maintained for a considerable length of time without destruction of the electrode, on direct current only, and when the non-fusing electrode is used as a cathode. This method can be utilized to develop a new technology of electric slag welding and fusing.

Card 2/3

The Effect of the Kind of Current and Polarity on Metallurgical Processes in Electric Slag Welding

There are 5 graphs, 1 table, 2 photos, 2 figures and 7 Soviet references.

ASSOCIATION: Institut elektrosvarki imeni Ye.O. Patona AN USSR (Electric Welding Institute imeni Ye.O. Paton, AN UkrSSR)

SUBMITTED: May 19, 1957

1. Arc welding--Analysis 2. Electric currents--Metallurgical effects 3. Welding fluxes--Metallurgical effects

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R000411430003-5"

SOV 125-58-3-12/15

AUTHORS: Zaruba, I.I., Dudko, D.A., and Potap'yevskiy, A.G.

TITLE: The Semi-Automat for Welding in Carbon Dioxide with a Thin Rod (Poluavtomat dlya svarki tonkoy provolokoy v zashchitnoy srede uglekislogo gaza)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 3, pp 83-85 (USSR)

ABSTRACT: The Institute of Electric Welding imeni Ye.O. Paton with the participation of the authors and engineers, V.Ya. Dobovetskiy, G.M. Gologovskiy, Yu.V. Vysotskiy, A.I. Porubinovskiy and mechanic Yu.M. Degtyarev, designed a small-sized hose semi-automat for welding in carbon dioxide with an electrode rod of 0,8 to 1,2 mm in diameter. The device was designed for welding joints on thin metal with different seam disposition. It can also be used to eliminate small welding defects and for small casting. The device consists of a holder, a feeding mechanism, a gas apparatus and a case, all of which are described and illustrated by a photograph and 2 schematic drawings. At present, the Institute has organized serial production of the described device.
There is 1 photograph, 1 schematic drawing, and 1 diagram.

Card 1/2

SOV 125-58-3-12/15

The Semi-Automat for Welding in Carbon Dioxide with a Thin Rod

ASSOCIATION: Institut elektrosvarki imeni Ye.O. Patona, AN USSR (Institute of Electric Welding imeni Ye.O. Paton, AS UkrSSR)

SUBMITTED: December 8, 1957

1. Arc welding machines--Design 2. Arc welding machines Equipment 3. Arc welding--Electrodes 4. Carbon dioxide--Performance

Card 2/2

DUDKO, D.A.

125-58-4-3/15

AUTHORS: Dudko, D.A., Candidate of Technical Sciences, and Rublevskiy, I.N., Engineer

TITLE: On the Transfer of Electrode Metal Drops in the Electric Slag Welding Process (O kapel'nom perenose elektrodnogo metalla pro elektroshlakovoy svarke)

PERIODICAL: Avtomaticheskaya Svarka, 1958, Nr 4, pp 24-31 (USSR)

ABSTRACT: Investigations of the movement of metal drops in the process of common electric arc welding as well as of electric slag welding were carried out previously [Ref. 1-4]. In the experiments described in this article, the frequency of the transfer of drops was studied by oscillographing the electric current and the voltage in the stabilized slag welding process. Interdependence between the drop transfer frequency and separate welding process parameters was studied. The obtained data is illustrated by oscillographs, diagrams and a chart. The following conclusions were made. 1) The frequency of electrode metal drops and the size of the drops depend on the type and the polarity of the current. The largest drops are observed in welding with a.c., and the smallest in welding with d.c. of inverse

Card 1/2

On the Transfer of Electrode Metal Drops in the Electric Slag Welding Process

polarity. 2) With an increased feed of electrode wire, and hence with the growing current, the frequency of drops rapidly increses and the size of drops diminishes. The intensity of metallurgical reactions must drop because of the briefer contact of the drops with the slag. 3) Increasing voltage and decreasing depth of the slag puddle bring about an abrupt increase in the frequency of drops and decrease in the size of drops. In this instance, the intensity of metallurgical reactions must considerably increase because of the increased contact surface between the metal and the slag.
There are 7 figures, 1 table, and 6 Soviet references.

ASSOCIATION: Institut elektrosvarki imeni Ye.O. Patona AN UkrSSR (Electric Welding Institute imeni Ye.O. Paton of the AS UkrSSR)

SUBMITTED: May 20, 1957

AVAILABLE: Library of Congress

Дудко. Д. А.

AUTHORS: Dudko, D.A., and Vinogradskiy, F.M. 125-58-5-10/13

TITLE: Shielded Arc-Welding of Non-Turnable Butt-Joints of Pipe Mains (Gazoelektricheskaya svarka nepovorotnykh stykov magistral'nykh truboprovodov)

PERIODICAL: Avtomaticheskaya Svarka, 1958, Nr 5, pp 83-85 (USSR)

ABSTRACT: The article gives general information on a new welding method for vertical joints on non-turnable pipes of 529-720 mm and larger diameters, in carbon dioxide and with the use of oscillating electrode for the second (outer) weld layer. The first layer is welded with thin electrode wire, downward, without any unusual technological measures. Macro-photographs show the first layer and the final two-layer seam (Fig. 1 and 3). The electric parameters of the welding process are given. The best suitable welding generators for oscillating electrode-welding are those with rigid outer characteristics, such as the charging generators "AZD-7,5/30" or some generators of the "GSR" series. The described technology assures fully satisfactory welds. The Welding Institute has devised special equipment for this purpose, which is currently undergoing industrial tests. There are 3 photographs.

Card 1/2

125-58-5-10/13

Shielded Arc-Welding of Non-Turnable Butt-Joints of Pipe Mains

ASSOCIATION: Institut elektrosvarki imeni Ye.O. Patona AN USSR (Electric Welding Institute imeni Ye.O. Paton of the AS UkrSSR)

SUBMITTED: February 25, 1958

AVAILABLE: Library of Congress

Card 2/2

AUTHORS: Dudko, D.A., Candidate of Technical Sciences; Rublevskiy, I.N., Engineer 125-58-6-5/14

TITLE: Changes of Slag Composition in the Electric-Slag Welding Process (Ob izmeneniyakh sostava shlaka v protsesse elektro-shlakovoy svarki)

PERIODICAL: Avtomaticheskaya Svarka, 1958, Nr. 6 pp 51 - 55 (USSR)

ABSTRACT: Changes in the chemical composition of slags were investigated in electric-slag welding with fluxes containing oxides (such as SiO_2, MnO, CaO, etc.) and "ANF-1" flux (fluorite concentrate). Changes of the slag chemical composition are characterized by the accumulation of ferric oxides, determining the process of metallurgical reaction between metal and slag. Manganese reaction in welding bath takes place without losses to the gaseous phase, whereas silicon reaction is accompanied by considerable losses thereof in the form of gaseous compounds with fluorine. In electric-slag welding, the concentration of CaF_2 decreases and CaO content increases due to the volatilization of fluorine into gaseous compounds, mainly with silicon. There are 2 tables, 2 graphs and 4 Soviet references.

Card 1/2

125-58-6-5/14

Changes of Slag Composition in the Electric Slag Welding Process

ASSOCIATION: Ordena Trudovogo Krasnogo Znameni Institut elektrosvarki imeni Ye.O. Patona AN UkrSSR (Order of Labor "Red Banner" Institute of Electric Welding im. Ye. O. Paton, AS UkrSSR)

SUBMITTED: September 27, 1957.

AVAILABLE: Library of Congress

Card 2/2 1. Welding-Processes 2. Slags-Chemical reactions

AUTHOR: Dudko, D.A., and Rublevskiy, I.N. 125-58-7-1/14

TITLE: The Effect of Electric-Slag Welding-Process Parameters on the Transition of Manganese and Silicon (Vliyaniye sostavlyayushchikh rezhima elektroshlakovogo protsessa na perekhod margantsa i kremniya)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 7, pp 3-7 (USSR)

ABSTRACT: The effect of the speed of electrode feed, the welding voltage and the slag-bath depth on the manganese and silicon transition through the interphase metal-slag border, was experimentally investigated with the use of "Sv-10G2" and "Sv-10GS" electrode rods and "AN-8" flux. It was proved that a reduced speed of electrode feed, a rising voltage and a decreasing depth of the slag bath intensified the manganese and silicon transition into slag, which is accounted for by the increased oxidizing capacity of slag. An explanation of the observed transition process rate is given.
There are 2 tables, 3 graphs and 6 Soviet references.

ASSOCIATION: Institut elektrosvarki imeni Ye.O. Patona AN USSR (Institute of Electric Welding imeni Ye.O. Paton, AS UkrSSR)

Card 1/2

125-58-7-1/14

The Effect of Electric-Slag Welding-Process Parameters on the Transition of Manganese and Silicon

SUBMITTED: October 1, 1957

1. Welding fluxes--Performance 2. Manganese--Phase studies
3. Silicon--Phase studies 4. Arc welding--Electrodes

Card 2/2

AUTHORS: Belous, G.S., Dudko, D.A. SOV-125-58-8-5/16

TITLE: A New Method of Casting Shaped Items and Ingots Without Lost Heads by Electric-Slag "Feeding-up" (Novyy sposob otlivki fasonnykh izdeliy i slitkov bez pribyley s pomoshch'yu elektroshlakovoy podpitki)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 8, pp 32-36 (USSR)

ABSTRACT: The Institute of Electric-Welding AS UkrSSR carried out investigations from 1956-58 to find new ways of eliminating lost heads and improving the quality of cast metal. As a result, a new method of electric-slag "feeding-up" was developed which consists of feeding up the top portion of the casting during crystallization by liquid metal from a metal electrode being fused in a slag bath. The method completely eliminates the shrinkage cavity. Runners and other foundry wastes can be used for electrodes. Information includes a schematic drawing and photographs illustrating the new method. A "feeding-up" device was designed (Fig. 4) which was tested under industrial conditions. The authors thanked N.G.Gavrilenko, former director of the Plant imeni Il'yich, I.I. Bragin, assistant chief metallurgist and L.M. Baryshevskiy, chief metallurgist of the "Rostsel'mash" Plant, for their assistance

Card 1/2

A New Method of Casting Shaped Items and Ingots Without Lost Heads by Electric-Slag "Feeding-up"

in developing the new technology.
There is 1 schematic drawing, 1 table, 5 photos and 2 references, 1 of which is Russian (1891) and 1 Soviet.

ASSOCIATION: Institut elektrosvarki imeni Ye.O. Patona AN USSR (Institute of Electric Welding imeni Ye.O. Paton AS UkrSSR)

SUBMITTED: May 19, 1958

1. Metallurgy 2. Castings—Quality control

AUTHORS: Tyagun-Belous, G.S. and Dudko, D.A. SOV-125-58-9-8/14

TITLE: Technological Problems of Steel-Part Casting With the Aid of a Electric-Slag Feeding-Up Process (Voprosy tekhnologii otlivki stal'nykh detaley s pomoshch'yu elektroshlakovoy podpitki)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 9, pp 48-55 (USSR)

ABSTRACT: Information is presented on a method developed at the Institute of Electric Welding relating to the casting of shaped parts without lost heads by electric slag feeding-up process. Technology of the new method was analyzed at the "Rostsel'mash" Plant, together with "p. ya. 4095", and experimental investigations were carried out on 1 ton steel casts. An optimum stepped technology was found for casts up to 1.2 tons, consisting of a three-stage process with intervals of 8-10 minutes. The new method improves the quality of cast metal due to the elimination of chemical heterogeneity and raises the yield of useful metal by 18-20%.
There is 1 set of diagrams, 1 graph, 2 photos, 2 charts, 2 tables, 1 micro-photo and 2 Soviet references.

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SOV-125-58-9-8/14

Technological Problems of Steel-Part Casting With the Aid of a Electric-Slag Feeding-Up Process

ASSOCIATION: Institut elektrosvarki imeni Ye.O. Patona, AN USSR (Institute of Electric Welding imeni Ye.O. Paton, AS UkrSSR)

SUBMITTED: May 20, 1958

1. Metallurgy---USSR 2. Steel---Casting 3. Steel---Processing 4. Steel---Test results

Card 2/2

SOV-125-58-10-4/12

AUTHORS: Tyagun-Belous, G.S., and Dudko, D.A.

TITLE: Electric-Slag Hot-Topping With Unfusing Electrodes of Ingots and Shaped Castings (Elektroshlakovyy obogrev neplavyashchimsya elektrodom golovnoy chasti slitkov i fasonnykh otlivok)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 10, pp 36 - 43 (USSR)

ABSTRACT: To reduce shrinkage cavity formation in castings and to improve the quality of cast metal, the Institute of Electric Welding suggested replacing the usual method of electric-arc hot topping by the method of electric-slag hot topping on three-phase current with three electrodes. As the heat is generated by the slag and not by an arc, the electrode feed process is considerably less complicated and simplifies the installation design. The technology of the new method is described, and the flux used (40 % CaO and 60 % CaF_2) and parameters are given. The welded metal was subjected to chemical analyses, the results of

Card 1/2

Electric-Slag Hot-Topping With Unfusing Electrodes of Ingots and Shaped Castings

which are shown in tables 1 and 2. It was stated that the chemical heterogeneity of ingots was reduced. On the basis of the tests it was stated that electric-slag hot topping can be recommended only for ingots and not for shaped castings where chemical homogeneity cannot be attained. Electric slag hot topping can be used on single-phase and three-phase current feed with one or more electrodes on each phase. The three-phase electric slag heating is recommended for the production of large-size castings with a developed surface of the metal bath. There are 3 diagrams, 4 photos, 1 oscillogram, 3 tables and 9 references, 5 of which are Soviet, 2 English and 2 German.

ASSOCIATION: Institut elektrosvarki imeni Ye.O. Patona AN USSR (Institute of Electric Welding imeni Ye.O. Paton AS UkrSSR)

SUBMITTED: July 3, 1958

1. Metals--Production 2. Metals--Casting 3. Metals--Heating
4. Slags--Heating 5. Electrodes--Performance

AUTHORS: Tyagun-Belous, G.S., Dudko, D.A. SOV/125-58-11-11/16

TITLE: Electric Slag Feeding-up of Sheet Ingots (Elektroshlakovaya podpitka listovykh slitkov)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 11, pp 66-70 (USSR)

ABSTRACT: It was proved by experiments carried out at the Zavod imeni Il'icha (Plant imeni Il'ich) and by tests of D.F. Cherneg and B.A. Molotkov, that electric-slag feeding-up reduces the structural and chemical heterogeneity of ingots and castings which appear in the form of the so called "lower cone" and V and inverted V-shaped segregations. The electric slag feeding-up method is based on an arcless process combined with a large-section fusing electrode, which, if applied to killed steel ingots, improves their structure by reducing the lower cone and the segregation. It is assumed that the improved structure is obtained by the dilution of the upper portion of the crystallizing metal bath by the pure electrode metal and by braking the convection of the liquid steel. The described method is economical and can be successfully used in the production of sheet ingots.

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Electric Slag Feeding-up of Sheet Ingots SOV/125-58-11-11/16

There are 2 diagrams, 1 photo, 1 table and 4 Soviet references.

ASSOCIATION: Institut elektrosvarki imeni Ye.O. Patona AN USSR (The Institute of Electric Welding imeni Ye.O. Paton, AS UkrSSR)

SUBMITTED: August 27, 1958

Card 2/2

SOV/125-58-12-7/13

AUTHORS: Dudko, D.A., Rublevskiy, I.N. and Tyagun-Belous, G.S.

TITLE: The Effect of the Electric Slag Process Conditions on the Fusion Rate of Thick Electrodes (Vliyaniye rezhima elektroshlakovogo protsessa na skorost' plavleniya elektrodov bol'shogo secheniya)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 12, pp 57-62 (USSR)

ABSTRACT: Experiments were carried out to determine the interdependence of the fusion rate of thick electrodes and electric slag welding parameters (such as current, voltage, slag-bath depth, electrode cross section) as well as the chemical composition of the electrode and the flux. It was stated that the coefficient of electrode fusion increases with a higher current intensity and voltage and with a reduced depth of the slag bath. The coefficient of fusion increases also with larger electrode cross sections, contrary to arc and electric slag processes with the use of an electrode rod. The fusing rate of the electrode also depends on the chemical composition of the electrode metal and slag.

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SOV/125-58-12-7/13

The Effect of the Electric Slag Process Conditions on the Fusion Rate of Thick Electrodes

There are 2 tables, 1 diagram, 4 graphs and 8 Soviet references.

ASSOCIATION: Institut elektrosvarki imeni Ye.O. Patona (Institute of Electric Welding imeni Ye.O. Paton)

SUBMITTED: September 22, 1958

Card 2/2

ZARUBA, Igor' Ivanovich; PATON, B.Ye., otv.red.; ASNIS, A.Ye., red.; KAZIMIROV, A.A., red.; MIKDOVAR, B.I., red.; PODGAYETSKIY, V.V., red.; DUDKO, D.A., kand.tekhn.nauk, red.vypuska; MAYEVSKIY, V.V., red.

[Automatic and semiautomatic welding of sheet steel] Avtomaticheskaia i poluavtomaticheskaia svarka tonkolistovoi stali. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 62 p. (MIRA 12:11)
(Sheet steel—Welding) (Electric welding)

PATON, B.Ye., akademik, doktor tekhn.nauk, laureat Leninskoy premii; VOLOSHKEVICH, G.Z., kand.tekhn.nauk, laureat Leninskoy premii; OSTROVSKAYA, S.A., kand.tekhn.nauk; DUDKO, D.A., kand.tekhn.nauk; POKHODNYA, I.K., kand.tekhn.nauk; STERENBOGEN, Yu.A., kand.tekhn. nauk; KUBLANOVSKIY, I.N., insh.; ZHEMCHUZHNIKOV, G.V., kand.tekhn. nauk; ROZENBERG, O.O., insh.; SHVBO, P.I., kand.tekhn.nauk; NOVIKOV, I.V., insh.; MEDOVAR, B.I., kand.tekhn.nauk; DIDKOVSKIY, V.P., insh.; RABKIN, D.M., kand.tekhn.nauk; TYAGUN-BELOUS, G.S., insh.; ZARUBA, I.I., kand.tekhn.nauk, retsenzent; GRUBEL'NIK, P.G., kand.tekhn.nauk, red.; TYNYANYY, G.D., red.

[Electric slag welding] Elektroshlakovaia svarka. Izd.2., ispr. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 409 p. (MIRA 13:4)

1. AN USSR (for Paton).
(Electric welding)

25(1) SOV/135-59-3-4/24

AUTHORS: Dudko, D.A., Candidate of Technical Sciences, and Vinogradskiy, F.M., and Yegorov, S.V., Engineers

TITLE: An Assembled Welding Unit for Welding Pipe Sections into Gas Pipelines Under Field Conditions (Sborochno-svarochnaya ustanovka dlya svarki sektsiy trub gazoprovodov v polevykh usloviyakh)

PERIODICAL: Svarochnoye proizvodstvo, 1959, Nr 3, pp 7-8 (USSR)

ABSTRACT: The article gives detailed design and operational information on a new pipe-welding installation for field conditions, devised by the Electric Welding Institute imeni Ye.O. Paton of the Ukrainian Academy of Sciences to eliminate the use of the backing rings and completely mechanize the assembling operations which until now required 4 to 6 men. The first such installation, "R-751", for the automatic field welding of pipe sections up to 720 mm diameter into 50 mm lengths, and joining the lengths to the pipeline, consists of a pipe-receiving unit, an assembling- and welding unit (Fig 2), and an output unit displacing and rotating the ready 50-meter

Card 1/2

An Assembled Welding Unit for Welding Pipe Sections into Gas Pipelines Under Field Conditions

pipe section. The design includes a flux pad under the butt joint. The welding heads are of two-electrode design, the electrodes being placed across the joint. Technological details are given. The assembly process requires 3 men. There are 2 photographs and 1 diagram.

ASSOCIATION: Institut elektrosvarki imeni Ye.O. Patona AN UkrSSR (The Electric Welding Institute imeni Ye.O. Paton of the Ukrainian Academy of Sciences)

12(2), 13(?), 25(5) SOV/125-59-7-10/19

AUTHOR: Dudko, D.A., Paton, V.Ya., Potapyevskiy, A.G., Mechev, V.S., Visozhnikov, V.V.

TITLE: Automatic Welding of Small Size Automobile Parts in a Carbon Dioxide Atmosphere

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 7, pp 78-82 (USSR)

ABSTRACT: The Institute of Electric Welding, imeni E.O. Paton, has worked out a method of automatic welding of circumferential welds by means of thin wire in a protective atmosphere of carbon dioxide. This method has been applied to the welding of small-size automobile parts. The welding outfit encompasses the following main parts: 1) the welding machine; 2) DC-generator; 3) cylinder with carbon dioxide; 4) oxygen reductor, and 5) carbon dioxide heater. The welding head is equipped with a design for continuous movement of the electrode wire. The speed of movement can be at will changed by means of a speed change box, within the limits of 119-330 m/hour. At the Moscow Carburettor

Card 1/3

Automatic Welding of Small Size Automobile Parts in a Carbon Dioxide Atmosphere

Plant, where at the present time the new welding machine is in operation, the method of soldering by high-frequency electric current had been formerly used, where the burning of thin metal work pieces often occured, and the required strength of welds was effected. After the new method was taken up, the production capacity has increased 3-3,5 times, the quality of welded work pieces and the labor conditions were improved. The necessity of making copper rings for brazing and the application of sand blast cleaning of work pieces were eliminated. At the moment, the plant and the institute carry on their experiments in that field with a view to further developing this new method and applying it to other automobile parts. There are 2 tables, 1 diagram, 4 photographs and 1 Soviet reference

SOV/125-59-7-10/19

Automatic Welding of Small Size Automobile Parts in a Carbon Dioxide Atmosphere

ASSOCIATION: 1) Ordena trudovogo krasnogo znameni institut elektrosvarki imeni Ye.O. Patona AN USSR (Order of the Red Banner of Labor Institute of Electric Welding, AS UkrSSR imeni Ye.O. Paton); 2) Moskovskiy karbyuratornyy zavod (Moscow Carburettor Plant)

Card 3/3

25(1) SOV/125-59-8-14/18

AUTHOR: Dudko, D.A.

TITLE: The R-912 Tool for Automatic Welding of Circular Seams of Small Diameter in a Medium of Carbon Dioxide

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 8, pp 92-93 (USSR)

ABSTRACT: This brief item describes the R-912 tool for welding circular seams 6-200 mm in diameter with a cathetus up to 6 mm in a CO_2 gas medium, and using thin wire (0.5-1.2 mm in diameter). The tool was developed and constructed at the Institut elektrosvarki imeni Ye.O. Patona (Institute of Electric Welding imeni Ye. O. Paton). The R-912 consists of a welding head on the base of a PSh-54 feed mechanism and a three-position "carousel type" table. A ZP-7.5/30 DC generator, balloon with CO_2, oxygen reducer with gauge, and heater for the CO_2 make up the rest of the complex. Some guide figures for welding of circular seams are tabulated. Welding is done with Sv-10GS or Sv-18KhMA wire according to GOST 2246-54 on DC current, reverse polarity. The tool guarantees a con-

Card 1/2

The R-912 Tool for Automatic Welding of Circular Seams of Small Diameter in a Medium of Carbonic Acid

sistently high quality of seam, and increases productivity by 5-15 times as well as cutting cost of welding. There are 2 photographs, and 1 table.

18(5), 25(1)

SOV/125-59-10-9/16

AUTHOR: Dudko, D.A., Candidate of Technical Sciences, Litvinchuk, M.D., Mechev, V. S. and Chernova, S. Ye., Engineers

TITLE: The Automatic Welding of the Seams of Thin-Walled Tubing in Carbon Dioxide

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 10, pp 77-80 (USSR)

ABSTRACT: The article contains the results of tests carried out at the Zaporozhskiy transformatornyy zavod (Zaporozh'ye Transformer Plant) on the welding of the butt-seams of 51 mm diameter steel tubing 1-1.5 mm thick. The process used was automatic arc-welding in carbon dioxide by means of a small-diameter melting electrode, and was considerably complicated by the fact that the tubing was slightly deformed at the edges due to the method of cutting. Certain other methods of welding, used where large clearances are required, are mentioned: overhead [Ref 3], vertical [Ref 1] and split electrode welding [Ref 4], the vertical method being eventually selected as most suitable (Fig 1). The actual welding operation was carried out by Type Sv-10GS and Sv-08GS electrode wire (diameter 1-1.2mm) at high speeds (80-90m/hour); the

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The Automatic Welding of the Seams of Thin-Walled Tubing in Carbon Dioxide

speed of delivery of the 1.2mm electrode wire was 137m/hour, the current 110-130 amps, the voltage 18-19 volts, the overhang of the electrode 10-12mm, the amount of carbon dioxide required 7-8 liters/min. Fig 2 shows an external view of the butt-end seams of the tubing, while tests carried out on the seams, as illustrated in Fig 3, confirmed their density as satisfying the necessary requirements. The simple instrument P-921 shown in Fig 4 was designed by the Institut svarki (Institute of welding), and consisted of a roller rotor (1), a welding head, an oxygen reducer and an electric section. The maximum length of tubing treated by this machine is 4,000 + 1,000 mm, and the minimum 800+800mm; power was provided by a .4 kilowatt synchronized motor, the speed of revolution of the rollers varying between 29m/hour and 96m/hour, while a PSh-54 feeding mechanism acted as the welding head, being provided with an auxiliary apparatus to correct the position of the electrode by ±25mm horizontally and ±15mm vertically. The machine

The Automatic Welding of the Seams of Thin-Walled Tubing in Carbon Dioxide

can weld 700 seams in a shift. There are 3 photographs, 1 diagram, and 4 Soviet references.

ASSOCIATION: Ordena trudovogo krasnogo znameni institut elektrosvarki imeni Ye.O. Patona AN USSR (Order of the Red Banner of Labor Institute of Electric Welding imeni Ye.O. Paton AS UkrSSR) (Dudko, D.A., Litvinchuk, M.D., Mechev, V.S.); Zaporozhskiy transformatornyy zavod (Zaporozh'ye Transformer Plant) (Chernovol, S. Ye.)

SUBMITTED: June 12, 1959

SOV/125-59-1-4/15

25(1)
AUTHOR: Dudko, D.A., Rublevskiy, I.N.

TITLE: The Influence of the Electrode Vibration on the Drop Transfer of the Electrode Metal When Using the Electric-Slag Process (Vliyaniye vibratsii elektroda na kapel'nyy perenos elektrodnogo metalla pri elektroshlakovom protsesse)

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 1, p 25-29 (USSR)

ABSTRACT: It has been experimentally established that the vibration of the electrode during the electric-slag process can not only decrease, but also suddenly increase the drops of the electrode metal. By increasing the amplitudes of the electrode fluctuations, the threshold of the drop decrease moves toward more lower frequencies. This is to be ascribed most likely to the arising of cavitational phenomena in the immediate areas of the electrode, which may take place when its movement is stepped up. By regulating the drop size, it is possible to affect the process of metallurgical reactions between the slag and the electrode metal in the drops. The drops are increased

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The Influence of the Electrode Vibration on the Drop Transfer of the Electrode Metal When Using the Electric-Slag Process

especially, when it is necessary to throttle an oxidation of alloying admixtures. A sudden decrease of drops at specific vibration parameters is followed by a considerable decrease in current. This may be used for intensifying the smelting process of the electrode, as the coefficient of the electrode smelting increases by 20 to 25 %. There are 3 oscillograms, 1 diagram, 1 table, and 4 Soviet references.

ASSOCIATION: Institut elektrosvarki imeni Ye. O. Patona, AN USSR
(The Institute of Electric Welding imeni Ye. O. Paton, of the AS UkrSSR)

SUBMITTED: October 25, 1958

18(5)
AUTHOR: Dudko, D.A., and Potap'yevskiy, A.G.

TITLE: Semiautomatic Machine A-547-R for Welding Thin Metal in Carbon Dioxide (Poluavtomat A-547-R dlya svarki tonkogo metalla v srede uglekislogo gaza)

PERIODICAL: Avtomaticheskaya svarka, 1959, Vol 12, Nr 2, pp 96-99 (USSR)

ABSTRACT: Semiautomatic welding using fine wire in carbon dioxide is being used more and more in industry. The Welding Institute produced an experimental batch of machines for the purpose in 1957. Despite some defects, the method has achieved good results. The machine has been redesigned and is known as A-547-R. It has been in series production since 1958. It is intended for welding metal 1 - 3 mm thick and angled joints with a cathetus of 1 - 4 mm. Welding at up to 170 amps is possible in any spacious area. Wire 0.8-1.0 mm in diameter is used. The container is small, weighing 200 g, without water cooling. It is connected to the supply mechanism

Semiautomatic Machine A-547-R for Welding Thin Metal in Carbon Dioxide

by 1200 mm of hose. Speed of supply of the electrode wire is constant and regulated at 100-360 m/hour. A circuit diagram of the machine is provided in the article. Battery charging generators or special generators (types listed) and rectifier VS-200 designed by the Institute can be used as a source of current. An independent feed for the excitation coil can be obtained from any source of direct current such as rectifiers VSA-5, VS-111, etc or from batteries switched in to the buffer circuit. Generators GSR-6000, GSR-9000, GSR-12000 can be used with self-excitation and a carbon voltage regulator or with independent feed for the excitation coil. Rectifier VS-200 is intended for use at up to 180 amps and 17-23 volts. It consists of a transformer with a sectioned primary winding, a rectifier block and induction coil, all mounted in one casing. It has 5 stages for regulating the idling voltage. In 1958 the Welding Institute, in cooperation with the Kiyev Electrical Instruments Factory, organized the production of an experimental batch of VS-200 rectifiers. At present the A-547-R machines are being

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successfully used in many plants. Semiautomatic welding provides a productivity increase of 5-8 times, saves a considerable amount of materials, cuts costs, increases the quality of the welding, and reduces labor expenditure significantly.

ASSOCIATION: Ordena trudovogo krasnogo znameni institut elektrosvarki imeni Ye.O.Patona AN USSR (Order of the Red Banner of Labor Institute of Electric Welding imeni Ye.O.Paton of the AS UkrSSR)

SUBMITTED: December 8, 1958

SOV/125-59-3-1/13

25(5)
AUTHOR: Voloshkevich, G.Z., Dudko, D.A., Chernykh, W.W., and Yeregin, L.P.

TITLE: New Method for Electro-Welding with Covered Electrode by Melting Work Pieces (Novyy sposob elektroshlakovoy svarki plavyashchimsya mundshtukom)

PERIODICAL: Avtomaticheskaya svarka, 1959, Vol 12, Nr 3, pp 3-7 (USSR)

ABSTRACT: By this new method it is possible to weld intricate profiles of practically any thickness. It is characterized by thin pieces of tubing (Fig. 1a), conducting the leads for the supply of electricity, which are welded to melting work pieces (Fig. 1a) of steel Ms-1. Insulation between the two pieces to be welded is provided by glass in prismatic shape. (Fig. 1 and 4). When the welding process is in progress, this gives rise to a pool of slag and a pool of metal (Fig. 1,5 and 6). Fig. 2,3 and 5 give instances of parts of a water turbine to be welded. Fig. 4 shows the welding of a difficult defect. The manufacture of a large ram (Fig. 6 and 7) by this

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New Method for Electro-Welding with Covered Electrode by Melting Work Pieces

welding process is mentioned as a particular feat. With a dimension of 3120 x 2020 mm of the surfaces to be joined by welding, the process was finished within 14 hours by using 12 melted work pieces. There are 5 diagrams and 2 photographs.

ASSOCIATION: Ordena trudovogo krasnogo znameni institut elektrosvarki im. Ye. O. Patona AN USSR (Order of the Red Banner of Labor Institute for Electro-Welding imeni Ye. O. Paton, AS UkrSSR) Novo-kramatorskiy mashinostroitel'nyy zavod (Novo-Kramatorskiy Factory for Machine Construction)

SUBMITTED: January 17, 1959

18(5) SOV/125-59-5-3/16

AUTHOR: Dudko, D.A., Candidate of Technical Sciences, Rublevskiy, I.N., Engineer, Tyagun-Belous, G.S., Engineer

TITLE: Peculiarities of Drop Transfer of the Large Sectional Electrode Metal during the "Electric Slag" Process

PERIODICAL: Avtomaticheskaya svarka 1959, Vol 12, Nr 5 (74) pp 28 - 33 (USSR)

ABSTRACT: The article presents the dependency between frequency of drop transfer, their weight, and the conditions of the "electric slag" process with electrodes having a large section. Ingots with a diameter of 100 mm and at least 200 mm long were cast in mould. During the time of casting oscillograph of the currency and the voltage were taken. For the casting, alternating current, fed by transformers of type TShS-1000/3 and TShS/3000/3 was used. Following materials were used: rods of steel type M 31 with a diameter of 30, 40 and 60 mm, and flux of type 48-OF-6. All experiments showed a regularly increasing frequency of drop transfer

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Peculiarities of Drop Transfer of the Large Sectional Electrode Metal during the " Electric Slag" Process

after the beginning of the process. (Fig. 1). The oscillographs, shown in Fig. 1, were taken during the "electric slag" process under following conditions: Current: 1200 A, Voltage: 49 V, depth of slag-tub: 45 mm, diameter of electrode: 40 mm. Special experiments for melting of rods with a diameter of 5.5 mm and 18.2 mm of Woods alloy were made. The authors state that the frequency of drop transfer depends to a high degree on the diameter of the electrode and the electric parameters. There are 3 photographs, 3 graphs, 1 table and 15 Soviet references.

ASSOCIATION: Ordena trudovogo krasnogo znameni institut elektrosvarki imeni Ye.O. Patona AN USSR (Order of the Red Banner of Labor Institute of Electric Welding imeni Ye.O. Paton AS UkrSSR).

SUBMITTED: January 12, 1959

DUDKO, D.A., kand.tekhn.nauk; KOMASHKO, N.P., otv. za vypusk; SANCHENKO, I.S., red.

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(MIRA 14:11)

1. Institut elektrosvarki im. Ye.O.Patona AN SSSR (for Dudko).
(Electric welding)