

Metal Pressure on the Piercing Mill Rolls

S/148/60/000/007/005/015
A161/A029

stainless and alloy steel the pressure is higher than in rolling carbon steel, provided that axial slip has no dominating effect as is the case in rolling 168x8 mm tubes of X 58φ (Kh5VF) and 168x10 mm tubes of X 5 (Kh5) steel tubes. When rolling tubes of equal diameter but different wall thickness, the pressure curve has a maximum. 2) The pressure on the inlet side screwdown is higher than on the outlet side screwdown: by 2-3 times in the piercing mill Nr 1, and 2-4 times in the Nr 2. Load on the outlet side bearings being much lower, their rated life time may be increased 2-3 times. 3) Only slip (lag) of metal was observed in the deformation zone, lead was absent. The axial slip coefficient was between 0.48 and 0.90. There are 8 figures and 5 Soviet references.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: June 24, 1959

Card 3/3

PAVLOV, I.M.; OSADCHIY, V.Ya., kand.tekhn.nauk

Investigating the coefficient of friction and selecting the
right material for hard facing rolls on pipe piercing mills.
Sbor.Inst.stali no.39:195-205 '60, (MIRA 13:7)

1. Kafedra prokatki Moskovskogo ordena Trudovogo Krasnogo
Znameni instituta stali im. I.V.Stalina. 2. Chlen-korrespondent
AN SSSR (for Pavlov).
(Pipe mills) (Friction)

OSADCHIY, V.Ya., kand.tekhn.nauk

Sulfidizing rubbing surfaces of rolling mill parts. Sbor.
Inst.stali no.39:219-225 '60. (MIRA 13:7)

1. Kafedra prokatki Moskovskogo ordena Trudovogo Krasnogo
Znameni instituta stali im. I.V.Stalina.
(Rolling mills) (Protective coatings)

S/130/61/000/001/005/006
A006/A001

AUTHORS: Osadchiy, V. Ya., Candidate of Technical Sciences, Golutchik, R. M.,
Engineer

TITLE: The Use of Lubricant in Pipe Rolling

PERIODICAL: Metallurg, 1961, No. 1, pp. 26-27

TEXT: In pipe burnishing technological lubricants are applied to reduce the supporting friction forces in the axial direction, by reducing the friction coefficient on the internal pipe surface. The effect of a number of technological lubricants on efficiency was studied at the Pervouralsk Novotrubnyy Plant on burnishing stands of the 220, 140, No. 1 and No. 2 pipe rolling mills. The investigation was carried out with the participation of A. Z. Gleyberg, P. Ye. Nenashev, E. O. Nodev, L. S. Rakhnovetskiy, A. V. Rabinzon and V. F. Pikalov. Burnishing was performed a) without a lubricant; b) with salt, thrown into the inlet groove of the burnishing stand; c) with salt thrown into the pipe after leaving the automatic stand; d) with air cinder; e) with furnace cinder; f) with a mixture of furnace cinder and salt (1 : 1). The cinder was preliminary screened through a 1-mm sieve. The technological lubricant was added in amounts of 80 - 100 g

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The Use of Lubricant in Pipe Rolling

S/130/61/006/001/005/006
A006/A001

when throwing the pipe on the feeding conveyer of the burnishing machine, i. e. 5 - 8 seconds prior to burnishing. The lubricant was applied to the pipe in a uniform layer to a greatest possible depth (0.8 - 1.0 mm). Salt as a lubricant is effective at low burnishing temperatures (800 - 850°C); however at elevated temperatures (1,000 - 1,050°C) the use of cinder is more efficient. The introduction of technological lubricant in the pipes prior to burnishing reduces machining time of burnishing and raises thus the efficiency of burnishing mills. As a rule, the forces during the burnishing process do not increase, when using lubricants so that power consumption does not increase either. A correct application of the lubricant should be obtained by using an automatic proportioning device.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

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S: 48 61/000/001/005/015
A: 61 A: 3

AUTHORS: Polukhin, P. I.; Osadchiy, V. Ya., and Golubenik, R. M.
TITLE: The use of technological lubricants in finish rolling of tubes
PERIODICAL: Izvestiya vyssnikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 1, 1961, 100 - 104

TEXT: Experiments with different lubricants have been carried out on two finish mills at the Yuzhnotrubnyy Plant. The reason for the experiments was the lack of data in literature on lubricants for helical rolling. NaCl is sometimes used in hot pressure working, but the chlorine liberation in the process is noxious, causes gas corrosion, and NaCl is relatively expensive. The purpose was to find a material with the same good lubricating properties as NaCl and without its drawbacks. The test tubes were thin-walled of small diameter. The following materials were tried: commercial NaCl; furnace scale; air scale; graphite; 50% furnace scale + 50% graphite; 50% air scale + 50% graphite; 50% furnace scale + 50% NaCl; 50% air scale + 50% NaCl; 50% NaCl + 50% graphite; 40% air scale + 40% graphite + 20% NaCl; 65% air scale + 35% graphite; 50% air scale + 20% gra-

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A161/A133

The use of technological lubricants in .

phite % 20% NaCl. (NaCl was not ground; scale was ground and screened through a 1 mm mesh screen, graphite was reduced to dust). About 80 - 100 g of lubricant was thrown into the pipes during their motion on a gravity grating from the automatic rolling mill to the receiving chute of the finish rolling mill. The effect of lubricants was studied by measuring the metal pressure on the rolls by carbon dynamometers in special holders placed under the forcing screws; the current was registered by a recording ammeter connected to a shunt on the motor feeder. Other parameters determined were: the power consumption; the rolls velocity; the rolling time for 9-meter tubes; the axial sliding factor. The rolling speed increase was higher on alloy steel tubes than on carbon steel; the solid scale layer on tubes from stainless steel seemed to neutralize the effect of lubricants. Conclusions: 1) Lubricants are necessary to reduce the braking friction on the mandrel in axial direction and to increase the mill output. 2) NaCl ensures a 10 to 40% higher rolling speed for tubes of different size and steel grades; the effect is higher on alloyed steel. 3) The best of the compounds tested is a mixture of NaCl with air scale. The effect of other lubricants is also positive. 4) Lubricants reduce the power consumption,

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The use of technological lubricants in...

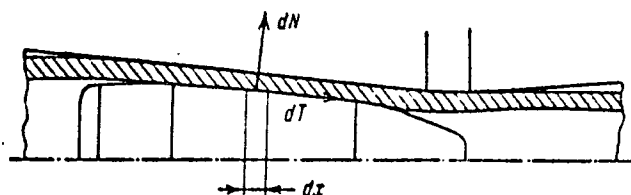
S/148/61/000/001/005/015
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improve the rolling process and reduce the wear of mandrels. There is 1 figure, 3 tables and 3 Soviet-bloc references.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: March 3, 1960

Fig. Axial forces on the contact surface between metal and mandrel



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S/148/61/000/003/005/015
A161/A133

AUTHOR: Osadchiy, V. Ya.
TITLE: Forces acting in helical rolling mills
PERIODICAL: Investiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, No. 3, 1961, 102 - 107

TEXT: The article presents a theoretical analysis of forces acting in helical tube rolling mills where the pressure exerted on the metal is determined not only by the work rolls but also by the top and bottom guide resisting the metal motion, and the piercing mandrel. It is stated that no method exists yet for an accurate analytical determination of the specific and full metal pressure of helical mill rolls, and empirical data have to be used for determinations. Reference is made to other authors' data on measurement results on several mills where the pressure of the screwdowns was much higher at the mill input end than at the output end (the ratio varied in the ranges of 1.0 - 2.33, 1.2 - 3.5, and 1.1 - 1.5). The author disagrees with the explanation of this phenomenon as the effect of the tube sides taking no part in deformation and by the peculiarities of the helical rolls shape. He analyzes the forces taking into account the effect of the screwdowns.

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Forces acting in helical rolling mills

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and the mill setting with the axis of rolling shifted below the mill axis, or with the rolling and the mill axis coinciding (both settings being used in the past), or the rolling axis shifted above the mill axis (which is only theoretical). It is proven that the pressure on the left and the right work roll will be different when the axis of rolling and of the mill are shifted separately and the author points out that measurements of the metal pressure on the rolls in helical mills have to be made carefully comparing the pressure on the right and the left rolls with the aid of four dynamometers. There are 2 figures and 6 Soviet-bloc references ✓

Card 2/2

POLUKHIN, P.I.; GOLUBCHIK, R.M.; OSADCHIY, V.Ya.

Secondary conditions of gripping during the piercing process. Izv.
vys.ucheb.zav.; chern.m.: 4 no.6:60-66 '61. (MIRA 14:6)

1. Moskovskiy institut stali.
(Rolling (Metalwork)) (Pipe mills)

POLUKHIN, P.I.; OSADCHIY, V.Ya.; GOLUBCHIK, R.M.; KIRVALIDZE, N.S.

Experimental investigation of the tube piercing process. Izv.
vys. ucheb. zav.; Chern. met. 4 no.7:88-96 '61.

(MIRA 14:8)

1. Moskovskiy institut stali i Yuzhnotrubnyy zavod.
(Pipe mills)

PAVLOV, I.M.; OSADCHIY, V.Ya.

Sticking of the metal to tools in sliding friction. Izv. vys.
ucheb. zav.; chern. met. 4 no.7:105-111 '61. (MIRA 14:8)

1. Moskovskiy institut stali.
(Metalworking machinery)
(Friction)

POLUCKIN, P.I.; GOLUBCHIK, R.M.; OSADCHIY, V.Ya.; KIRVALIDZE, N.S.

Methods of measuring the axial forces acting on the mandrel in the
tube reeling process. Izv. vys. ucheb. zav.; Chern. met. 4
no.8:72-77 '61. (MIRA 14:9)

1. Moskovskiy institut stali i Yuzhnotrubnyy zavod.
(Pipe mills)

S/148/61/000/005/004/015
E113/E180

AUTHORS: Peruchin P.I., Osadchiy V.Ya., Golubchik R.M.,
and Zel'dovich I.S.

TITLE: Determination of axial forces acting on the mandrel
of a piercing mill

REFERENCE: Izvestiya vysshikh uchebnykh zavedeniy,
Chernaya metallurgiya 1961, No.5 pp. 102-108

ABSTRACT: The purpose of this work is to give an analytical
formula for the determination of axial forces acting on the
mandrel of a piercing mill. To derive this formula statics and
mathematical calculus are applied. The axial forces Q_1 , Q_{II} , Q_{III}
acting on the mandrel in each region are expressed in terms of the
geometry of the mandrel, the friction coefficient existing between
the metal surface and the mandrel, and the reaction forces from
the rollers. Fig 1 shows the force diagram for the determination
of axial forces acting on the mandrel according to N.D. Lomakin
(Ref.5: N.D. Lomakin, "Determination of the axial forces acting on
the mandrel of a piercing mill. Metal working by pressure"
Collected articles under the editorship of N.P. Gromov issue IV,
1956)

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V

Determination of axial forces

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E113/E180

In order to find the resultant of these forces for any shape that the generating curve of the mandrel may have they are considered when acting on an elementary part of the generating curve. As an example the axial forces Q_1 and Q_2 are calculated for a mandrel having spherical shape using the theoretical approach developed. Axial force Q_{pl} can be calculated from considerations of statics as in the region where it acts the generating curve of the mandrel is a straight line. It is necessary to note that not all of the force from the rolls is transmitted to the mandrel, but part of it is absorbed by the plastic bending of the walls of the rough-pierced tube. According to N. D. Lomakin the force necessary for plastic bending can be calculated according to the formula:

$$dP_{\text{bending}} = 0.8k_f \frac{(d_x - d'_x)^2}{d_x + d'_x} dx$$

where: k_f - resistance to plastic deformation. d_x, d'_x - external and internal diameters of the rough pierced tube at the section x . This formula is applied in the present work and with its aid, the
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Determination of axial forces..... S/148/61/000/005/004/015
E113/E180

final form of formulae for the axial forces is derived. To check the correctness of the derived formulae, experiments have been carried out at Yuzhnotrubby zavod, one of the Soviet tube mills. In these experiments, the axial forces were measured for various cone angles of the rolls and various reductions at the tip of the mandrel. For the same values, the axial forces were calculated by means of the derived formula and are tabulated. Fairly good agreement between the theoretical and calculated values of axial forces can be observed. P.T. Yemel'yanenko, S.I. Borisov and A.I. Tselikov are mentioned in the paper. There are 3 figures, 1 table and 5 Soviet references.

ASSOCIATION: Moskovskiy institut stali
(Moscow Steel Institute)

SUBMITTED: July 1, 1960

Card 3/ 5

PAVLOV, I.M.; OSADCHIY, V.Ya.

Effect of the speed of rolling in automatic rolling mills on pipe quality. Izv. vys. ucheb. zav.; chern met. 5 no.1:121-123 '62. (MIRA 15:2)

1. Moskovskiy institut stali.
(Pipe mills)

PAVLOV, I. M.; OSADCHIY, V. Ya., kand. tekhn. nauk

Nature and mechanism of metal sticking during sliding
friction. Sber. Inst. stali i splav. no.40:173-180 '62.
(MIRA 16:1)

1. Chlen-korrespondent AN SSSR (for Pavlov).

(Rolling(Metalwerk)) (Friction)

PAVLOV, I. M.; OSADCHIY, V. Ya., kand. tekhn. nauk; SUVOROV, I. K.,
kand. tekhn. nauk

Increasing the resistance of passes on 250 mills to sticking
and wear. Sbor. Inst. stali i splav. no.40:225-234 '62.
(MIRA 16:1)

1. Chlen-korrespondent AN SSSR (for Pavlov).

(Rolling mills)

OSADCHIY, V. Ya., kand. tekhn. nauk

Performance of rod mill roller guide units. Sbor. Inst. stati
i splav. no.40:235-250 62%. (MIRA 15 1

(Rolling mills)

POLUKHIN, P. I., prof., doktor tekhn. nauk; OSADCHIY, V. Ya., kand.
tekhn. nauk; GOLUBCHIK, R. M., kand. tekhn. nauk; RYMOV, V. A.,
inzh.; KIRVALIDZE, N. S., inzh.; YESAULOV, A. T., inzh.;
GLADKIKH, D. V., inzh.; MAVRODIY, P. D., inzh.

Improving the grooving of roughing rolls of unit 400 plug
rolling mills. Sbor. Inst. stali i splav. no.40:319-326 '62.
(MIRA 16:1)

1. Moskovskiy institut stali i Yuzhnotrubnyy zavod.

(Rolls(Iron mills)) (Pipe mills)

MUSIKHIN, A.M., kand. tekhn. nauk; PAVLOV, I.M.; OSADCHIY, V.Ya.,
kand. tekhn. nauk

Roll grooving for three-high reeling mills of diagonal rolling.
Sbor. Inst. stall i splav. no.40:327-329 '62. (MIRA 16:1)

1. Chlen-korrespondent AN SSSR (for Pavlov),
(Rolls(Iron mills)) (Pipe mills)

OSADCHIY, V. Ya., kand. tekhn. nauk

Determination of groove width on automatic reeling mills.
Sbor. Inst. stali i splav. no.40:330-334 '62.
(MIRA 16:1)

(Pipe mills)

PAVLOV, I. M.; MUSIKHIN, A. M., kand. tekhn. nauk; OSADCHIY, V. Ya.

Metal pressure on the rolls of a three-high reeling mill of
diagonal rolling. Sbor. Inst. stali i splav. no.40:335-337
'62. (MIRA 16:1)

(Pipe mills) (Pressure)

16
16

OSADCHIY, V. Ya., kand. tekhn. nauk

Character of unit pressure distribution in diagonal rolling.
Sbor. Inst. stali i splav. no.40:338-342 '62.
(MIRA 16:1)

(Pipe mills)

POLUKHIN, P. I., prof., doktor tekhn. nauk; OSADCHIY, V. Ya., kand.
tekhn. nauk; RYMOV, V. A., inzh.; GOLOVKIN, R. V., inzh.;
KRICHEVSKIY, Ye. M.

Experimental investigation of power parameters of electric pipe
welding machines. Sbor. Inst. stali i splav. no.40:451-459 '62.
(MIRA 16:1)

1. Moskovskiy institut stali i Moskovskiy trubnyy zavod.

(Electric welding—Equipment and supplies)

PAVLOV, I.M.; OSADCHIY, V.Ya.; GETIYA, I.G.

Investigating the transverse rolling process by means of a
roller-torsiometer. Izv. vys. ucheb. zav.; Chern. met. 6 no.3:
117-120 '63. (MIRA 16'5)

1. Moskovskiy institut stali i splavov.
(Rolling (Metalwork)) (Strain gauges)

PAVLOV, I.M.; OSADCHIY, V.Ya.; GETIYA, I.G.; FROLOCHKIN, V.V.;
KOLIKOV, A.P.

Investigating the process of rapid cross rolling. Izv. vys.
ucheb. zav.; chern. met. 7 no.3:107-112 '64. (MIRA 17:4)

1. Moskovskiy institut stali i splavov.

ACCESSION NR: AP4036805

8/0286/64/000/009/0011/0011

AUTHOR: Potapov, I. N.; Polukhin, P. I.; Osadchiy, V. Ya.; Finagin, P. M.;
Mogilevkin, F. D.; Golubchik, R. M.; Tartakovskiy, I. K.

TITLE: A method for rolling seamless thin-walled pipes. Class 7, No. 162089

SOURCE: Byul. izobr. i tovar. snakov, no. 9, 1964, 11

TOPIC TAGS: pipe rolling, seamless pipe, thin-walled pipe, rolling mill, pipe
rolling mill, metal rolling

ABSTRACT: This author's certificate introduces a method for rolling seamless thin-walled pipes by the intensive rolling (burnishing) method. In order to increase the mill productivity and reduce the thickness of the pipe walls (for example a wall thickness of 1.5 mm and more at a diameter to wall thickness ratio of 12-30), the burnishing (intensive rolling) is carried out on a conical mandrel in a rolling mill with three rollers. The working rollers of the mill are made in the form of two cones.

ASSOCIATION: none

Card 1/2

ACCESSION NR: AP4036805

SUBMITTED: 16Jan68

SUB CODE: MM

DATE ACQ: 02Jun64

NO REF SOV: 000

ENCL: 00

OTHER: 000

Card 2/2

OSADCHIY, V.Ya.; GETIYA, I.G.; MOGILEVKIN, F.D.; AL'SHEVSKIY, I.Ye.;
KLYAMKIN, N.L.; KATS, G.I.

Deformation and rate conditions of the pipe reduction
on a three-high mill. Izv. vys. ucheb. zav.; Chern. met. P
no.11:83-87 '65. (MIRA 18:11)

1. Moskovskiy institut stali i splavov.

L 27983-66 EWP(w) EM/JT

ACC NR: AP6017674

SOURCE CODE: UR/0198/65/001/007/0063/0066

AUTHOR: Myachenkov, V. I. (Moscow); Osadchiy, Ya. G. (Moscow)

22
8

ORG: none

TITLE: Approximation method of calculating circular three-layer plates

26

SOURCE: Prikladnaya mekhanika, v. 1, no. 7, 1965, 63-66

TOPIC TAGS: approximation, differential equation, flat plate

ABSTRACT: The article offers an approximate calculation of circular three-layer plates beyond the elastic limit, based on the use of the energy method for the solution of differential equations of equilibrium of a plate. The notations used are those of V. I. Feodos'yev in his work 'Prochnost' teponapryazhennykh uzlov zhidkostnykh raketnykh dvigateley' (Strength of thermally stressed liquid rocket engine assemblies), State Scientific-Technical Publishing House of Defense Literature, 1963. Orig. art. has: 5 figures and 12 formulas. [JPRS]

SUB CODE: 12, 13 / SUBM DATE: 04Oct64

Card 1/1 CC

I 8180-66 EWT(d)/EWT(m)/EWP(w)/EPF(c)/EWP(j)/I/EWP(k)/ETC(m) WW/EM/RM
ACC NR: AP5027591 SOURCE CODE: UR/0145/65/000/009/0022/0030

AUTHOR: Myachenkov, V. I. (Aspirant); Osadchiy, Ya. G. (Aspirant)

ORG: None

TITLE: Energy method for calculation of round three-ply laminates with a filler

SOURCE: IVUZ. Mashinostroyeniye, no. 9, 1965, 22-30

TOPIC TAGS: laminated material, mathematic analysis

ABSTRACT: The article expounds a new method for calculation of round three-ply unsymmetrical laminates beyond the elastic limit. The method permits calculating unreinforced laminates, as well as laminates reinforced with annular supports. The problem is solved in the region of small elastic-plastic deformations. The material of the laminates is assumed to be incompressible and the loading to be simple. It is assumed that the deflection of the laminate, W , receives an infinitely small increment, δW . In this case, the variational equation for the equilibrium of the laminate is written in the form:

$$\delta L - \delta V, \quad (1)$$

where δV is the change in the deformation energy of the laminate; δL

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UDC: 624.073

I 8180-56

ACC NR: AP5027591

is the work expended by the external forces on the displacement δw and the work of the peripheral generalized forces on the corresponding variations of the generalized displacements. In the case of attached or free bearing of the edges of the laminate:

$$\delta L = \iint_F p \delta W dF, \quad (2)$$

where the integration is extended over the whole surface of the laminate, F . The variation of the work of the internal forces for an incompressible material is equal to

$$\delta V = \iiint_V \sigma_i \delta \epsilon_i d\Omega, \quad (3)$$

where the integration extends over the whole volume of the laminate. Thus, the equilibrium equation (1) can be written in the form:

$$\iiint_V \sigma_i \delta \epsilon_i d\Omega = \iint_F p \delta w dF. \quad (4)$$

The article proceeds to a complete mathematical solution of the problem on the above basis, and concludes with an example in the form of a numerical calculation for a construction of this type. Orig. art. has: 27 formulas and 4 figures.

SUB CODE: MT, MM/ SUBM DATE: 13Nov64/ ORIG REF: 002/ OTH REF: 000

ny
Card 2/2

OSADCHIY, YA. P

PA 41T22

USSR/Engineering
Factories - Production
Pipe Industry

Jan 1948

"The First Pipe Factory of the Urals," Ya. P. Osadchiy,
Director, PervoUral Pipe Factory, 2½ pp

"Stal'" No 1

First factory went up in 1930. By 1934 it was turning out pipes for several uses. Briefly discusses development of factory, and mentions its part in accomplishing the present Five-Year Plan. Expected factory will be turning out greater part of alloy pipes produced in Soviet Union by end of this Five-Year Plan.

41T22

ACC NR: AP6035712

(A)

SOURCE CODE: UR/0413/66/000/019/0058/0058

INVENTOR: Knyazhinskiy, Z. O.: Raychuk, Yu. I.: Kalinushkin, P. N.: Osadchiy, Ya. P.:
Usachev, I. M.

ORG: none

TITLE: Mill housing for continuous welding of large-diameter tubes. Class 21, No. 186585 [announced by the All-Union Research and Design Technological Institute of the Piping Industry (Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorsko-tekhnologicheskii institut trubnoy promyshlennosti)]

SOURCE: Izobreneniya, promyshlennyye obratzsy, tovarnyye znaki, no. 19, 1966, 58

TOPIC TAGS: welding, ~~continuous welding, heavy tube welding~~, welding equipment

ABSTRACT: This Author Certificate introduces a mill housing for continuous welding of a large-diameter tubes (see Fig. 1) comprising a frame and a sizing device. To ensure and maintain close contact between the edges to be welded, the sizing device is

UDC: 621,774,21.06

Card 1/2

ACC NR: AP6035712

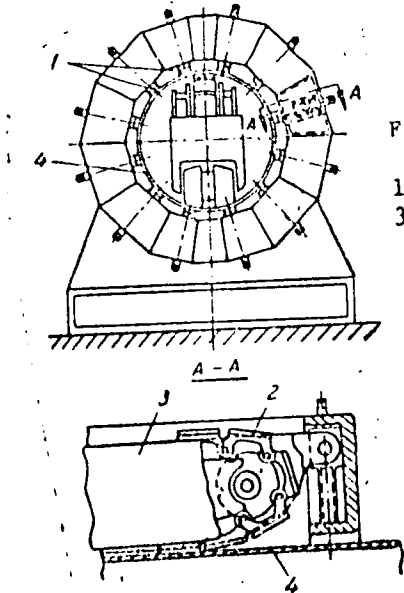


Fig. 1. Mill housing

- 1 - Endless chains;
- 2 - chain links;
- 3 - longitudinal guide;
- 4 - tube.

formed by a set of endless chains whose links rest on rigid guides and form a die which moves together with the tube. Orig. art. has: 1 figure.
SUB CODE: 13/ SUBM DATE: 15Feb65/ ATD PRESS: 5106
Card 2/2

OSAGE IV, Y. ...

Deposits of
BOS. ...
(Post--Dr. ...)

OSADCHIY, Ye.A.; KOSTYUK, N.S.

Drain of rain water from the surface of profiled plots. Trudy Inst.
torf. AN BSSR 9:39-42 '60. (MIRA 14:2)
(Peat) (Drainage)

AKSENOV, Ye.A., glav. red.; KALITKO, L.M., red.; KUEZMAK, D.I.,
red.; LYUBCHIK, K.P., red.; SLOUCHIY, Ye.A., red.

Production of peat briquets and semibriquets; exchange
of technical-production experience. Proizvodstvo torfia-
kubrikov i semikubrikov; obmen proizvodstvenno-
tekhnicheskim opytom. Minsk, Izd. red.-izd. otdela in-ta
nauchno-tekhn. informatsii i propagandy Goskmiteta Soveta
Ministrov BSSR po koordinatsii nauchno-issl. rabot, 1962.
79 p. (KGBA 17:11)

1. Vsesoyuznoye nauchno-tekhnicheskoye obshchestvo energo-
ticheskoy promyshlennosti. Belorusskoye respublikanskoye
otdeleniye.

KUZNETS, M.M., prof. [deceased]; BOGDANOVICH, S.N., dotsent; LEVKOVSKIY, N.M.,
kand. med. nauk; SEMENOVA, V.N.; GLUKHEN'KIY, B.T.; FUKI, M.M.; OSADCHIY,
Ye.D.; BARABASH, M.Ye.; VIL'CHINSKIY, S.P.; VITER, I.S.; VOROBETS, I.F.;
GRABOVSKAYA, R.A.; RAKHMATULLINA, M.G.; SALOVA, G.V.

Treatment of lupus eruthermatosus with phtivazid. Vrach. delo no.4:
373-378 Ap '59. (MIRA 12:7)

1. Kiyevskiy meditsinskiy institut.
(LUPUS)(ISONICOTINIC ACID)

NOVITSKIY, P.V.; NOVOPASHENNY, G.N.; ZOGRAF, I.A.; OSADCHIY, Ye.P.

Amplifiers used for measurements and equipped with semiconductor triodes. Poluprov.prib. 1 ikh prim. no.3:196-208 '58.
(MIRA 12:4)

(Transistor amplifiers)

OSADCHIYEV, Vasily Georgiyevich, dotsent; IVANKOV, Petr Timofeyevich,
dotsent; BILIBSKIY, M.Ya., redaktor; RAKOV, S.I., tekhnicheskiy
redaktor

[Manual for young woodworkers] Spravochnik molodogo derevo-
obrabotchika. Moskva, Vses.uchebno-pedagog.izd-vo Trudrezervizdat,
1957. 400 p. (MIRA 10:7)
(Woodworking industries)

OSADCHIYEV, Vasilii Georgiyevich; IONOV, Anatoliy Mikhaylovich;
MODIN, N.I., red.; SEDOVA, Z.D., red. izd-va: GRECHTSHCHEVA.
V.I., tekhn. red.

[Care of furniture, its transportation, repair and storage]
Ukhod za mebel'iu, perevozka, remont i khranenie. Pod ob -
shchei red. V.G.Osadchieva. Moskva, Goslesbumizdat, 1962.
137 p. (MIRA 15:9)
(Home economics) (Furniture)

OSADCHIYEV, Vasilii Georgiyevich; IVANKOV, Petr Timofeyevich;
SHUBIN, Grigoriy Solomonovich; TIKHOMIROV, V.V., nauchn.
red.; LEYKINA, A.K., red.; DORODNOVA, L.A., takhn. red.

[Manual for the young woodworker] Spravochnik molodogo de-
revoobrabotchika. Izd.2., perer.i dop. Moskva, Proftekhizdat,
1963. 346 p. (MIRA 16:7)
(Woodworking industries)

MO:OZOV, Nikolay Aleksandrovich, dots., kand. tekhn. nauk;
KHABAROV, L.N., retsenzert; OSADCHIYEV, V.G., kand.
tekhn. nauk, retsenzert; MEDVEDEVA, Ye.T., red.

[Technology of wood processing] Tekhnologiya obrabotki
drevesiny. Moskva, Lesnaya promyshlennost', 1965. 333 p.
(MIKA 18:5)

1. Trubchevskiy lesotekhnicheskiy tekhnikum (for Khabarov).
2. Moskovskiy lesotekhnicheskiy institut (for Osadchiyev).

OSADCHIYEVA, A.L.

Results of bacteriological examination in cases of chronic dysentery in children treated with synthomycin. *Pediatria* no.3:72-73 My-Je '53.
(MLBA 6:8)

1. Kafedra epidemiologii II Moskovskogo meditsinskogo instituta imeni I.V. Stalina.
(Dysentery) (Antibiotics)

SHATROV, I.I.; OSADCHYAKOVA, A.L.

Some comments on problems of epidemiology treated in the "Handbook
for the practicing physician." Zhur. mikrobiol. epid. i immu. 20
no. 6: 152-153 Sep '77. (LIRA 17 1977)
(ANTHROPOLOGY)

OSADCHIYEVA, A.L., dotsent; LUPINA, M.I., rayonnyy epidemiolog

Study of the effectiveness of whooping cough-diphtheria vaccines.
Sov.med. 25 no.6:51-55 Je '61. (MIRA 15:2)

1. Iz kafedry epidemiologii (zav. - prof. V.V.Skvortsov) II
Moskovskogo meditsinskogo instituta imeni N.I.Pirogova i sanitarno-
epidemiologicheskoy stantsii Oktyabr'skogo rayona.
(WHOOPING COUGH PREVENTIVE INNOCULATION)
(DIPHTHERIA PREVENTIVE INNOCULATION)

SKVORTSOV, V.V.; OSADCHIYEVA, A.L.; EYDINOVA, G.G.; SOLNTSEVA, L.Ya.

Increased attention to the prevention of intestinal infections in children. Vop. okh. mat. i det. 7 no.3:3-5 Mr '62. (MIRA 15:5)

1. Iz kafedry epidemiologii II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova i sanitarno-epidemiologicheskoy stantsii Oktyabr'skogo rayona Moskvyy.

(INTESTINES--DISEASES)

(CHILDREN--DISEASES)

SKVORTSOV, V.V.; OSADCHIYEVA, A.L.; EYDINOVA, G.G.; ABRAMOVA, N.I.;
IVANOV, V.M.; SMIRNOV, V.D.

Reviews, criticism and bibliography. Zhur. mikrobiol.,
epid. i immun. 33 no.7:145-152 J1 '62. (MIRA 17:1)

OSADCHIYEVA, A.L.; EYDINOVA, G.G.; YERSHOV, F.I.

Epidemiology of colienteritis. Sov. med. 28 no.7:44-48 JI '64.
(MIRA 18:8)

1. Kafedra epidemiologii i Tsentral'naya nauchno-issledovatel'skaya
laboratoriya II Moskovskogo meditsinskogo instituta imeni Pirogova.

OSADCHUK, Aleksandr Danilovich [Osadchuk, O.D.]; SHMATKO, Yu.G., kand.
sil'skok.nauk, red.

[Turkey breeding] Rozvedennia indykv. Kyiv, 1958. 41 p.
(Tovarystvo dlia poshyrennia politychnykh i naukovykh snan'
Ukrains'koi RSR. Ser.3, no.23) (MIRA 12:2)
(Turkeys)

POPOV, A.A., kand.veterin, nauk; OSADCHUK, A.D., starshiy nauchnyy
sotrudnik

Deep litter as a means of increasing egg yields of hens and
the labor productivity of poultry units. Ptitsevodstvo 9
no.9:26-31 5 '59. (MIRA 12:12)

1. Ukrainskaya opytnaya stantsiya ptitsevodstva.
(Litter(Bedding)) (Poultry)

DAKHNOVSKIY, N.V.; KEGHLES, Ye.S.; OSADCHUK, A.D.

Extra-wide chicken house with over-all mechanization for keeping
hens on permanent litter. Ptitsevodstvo 9 no.1:17-23 Ja '59.
(MIRA 12:1)

1. Ukrainskaya opytnaya stantsiya ptitsevodstva.
(Poultry houses and equipment)

YERHOV, B.L., inzh.; OSADCHUK, A.E., inzh.

Using air-entrained gypsum in insulating pipes. Rats. 1 izobr.
predl. v stroi. no.7:78-81 '58. (MIRA 11:12)
(Insulating materials)

~22

NEKHUTMAN, Semen Veniaminovich; OSADCHUK, Grigoriy Ivanovich; SKRIPKIN, Viktor Vasil'yevich; TSAHENKO, A.P., red.; BOBROVA, Ye.N., tekhn.red.

[Experience in transporting perishable freight; practices of the depot of refrigerated trains in the Moscow suburban station]
Opyt perevozki skoroprotiashchikhsia gruzov; iz praktiki depo refrisheratornykh poezdov stantsii Podmoskovnala. Moskva, Gos. transp.zhs1.-dor.isd-vo, 1959. 96 p. (MIRA 12:6)
(Railroads--Freight)

ZOROKHOVICH, Aleksandr Yefimovich; KOLOKOLOV, Aleksandr Aleksandrovich;
OSADCHUK, Grigoriy Ivanovich, inzh.; SKRIPKIN, Viktor Vasil'yevich;
SELIVANOV, V.I., inzh., retsenzent; KHITRCV, P.A., tekhn. red.

[Trains with mechanical refrigeration; construction, operation, maintenance, and repair] Poezda s mashinnyim okhlazhdeniem; ustroistvo, ekspluatatsiia i remont. Izd.2., perer. i dop. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 371 p.
(Railroads--Electric equipment) (MIRA 14:11)

MARINOV, Girsh Ayzikovich; NEKRUTMAN, Semen Veniaminovich; QSADCHUK, ...
Grigoriy Ivanovich; MARTYNOV, M.S., inzh., retsenzent; TSARENKO,
A.P., inzh., red.; MEDVEDEVA, M.A., tekhn. red.

[Operation of cars with mechanical refrigeration] Ekspluatatsia
vagonov s mashinnym okhlazhdeniem. Moskva, Transzheldorizdat,
1962. 163 p. (MIRA 15:6)

(Refrigerator cars)

OSADCHUK, Grigoriy Ivanovich; FAYERSHTEYN, Yuliy Oskarovich;
DEM'YANKOV, N.V., inzh., retsenzent; ANIKIN, S.V., inzh.,
retsenzent; BRAYLOVSKIY, N.G., inzh., red.; BOBROVA, Ye.N.,
tekh. red.

[Maintenance and repair of trains with refrigeration equip-
ment] Remont poezdov s mashinnyim okhlazhdeniem. Moskva,
Transzheldorizdat, 1962. 286 p. (MIRA 15:9)
(Refrigerator cars--Maintenance and repair)

OSADCHUK, G.I.; SLUSHAYENKO, A.M.; BELICHENKO, G.M., retsenzent;
ZVORYKIN, M.L., retsenzent; KOROTEYEV, I.M., retsenzent;
LIBERZON, M.I., retsenzent; KHARITONOV, A.A., retsenzent;
GARSHIN, I.M., red.; BOBROVA, Ye.N., tekhn. red.

[Refrigerator car equipment and air conditioning] Kholodil'-
noe oborudovanie vagonov i konditsionirovanie vozdukha. Mo-
skva, Transzheldorizdat, 1963. 299 p. (MIRA 17:2)

OSADCHUK, G.I., inzh.

Modernization of isothermal cars. Zhel.dor.transp. 45 n.10:48-
51 0 '63. (MLHA 16:11)

OSADCHUK, G.I.; RUBINCHIK, I.M.; NEKRUTMAN, S.V., kand.tekhn.nauk

Technical maintenance of air conditioning plants. Zhel.dor.transp.
47 no.10:45-51 0 '65. (MIRA 18:10)

1. Zamestitel' glavnogo inzhenera Glavnogo upravleniya vagonnogo khozyaystva Ministerstva putey soobshcheniya (for Osadchuk).
2. Rukovoditel' laboratorii klimaticheskikh ustanovok Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta Ministerstva putey soobshcheniya (for Rubinchik).

OSADCHUK, L.A.

Organizing the independent work of students in the schools for
working youth. Fiz. v shkole 23 no.4:75-77 J1-Ag '63.
(MIRA 17:1)

1. 12-ya shkola rabochey molodezhi, Odessa.

ZHURAVLEV, V.S.; OSADCHUK, M.I.

Structural and facies zonation of the Rhiphaean folded bedrock of
Timan. Biul. MOIP. Otd. geol. 35 no. 3:89-102 My-Je '60.

(MIFA 14:2)

(Timan Ridge--Geology, Stratigraphic)

SHRAYER, I.A.; OSADCHUK, M.I.

Closed trauma of the pancreas. Vest. khir. 84 no. 2:118-120 F '60.
(MIRA 14:1)

(PANCREAS--WOUNDS AND INJURIES)

ZHURAVLEV, V.S.; OSADCHUK, M.I.

Tectonic position of the Kislyy Eucheys series in the Riphean folded basement of the Timan. Dokl. AN SSSR 146 no.5:1156-1159 '62.

(MIRA 15:10)

1. Geologicheskii institut AN SSSR i Ukhtinskoye territorial'noye geologicheskoye upravleniye. Predstavleno akademikom A.L.Yanshinym.
(Timan Ridge—Geology)

DAKHNOVSKIY, M.V.; OSADCHUK, O.D., starshiy nauchnyy sotrudnik

Development of poultry farming. Nauka i zhyttia 8 no.4:27-29
Ap '58. (MIRA 13:5)

1. Direktor Ukrainskoy issledovatel'skoy stantsii ptitsevodstva
(for Dakhnovskiy).
(Ukraine--Poultry)

OSADCHUK, S.P.; YEFIMOVA, V.S.

Case of agranulocytosis induced by drugs. *Zdrav. Kazakh.* 16 no.10:
36-39 '56. (MLRA 9:12)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - professor
M.A. Brener) i kafedry patologicheskoy anatomii (zav. - professor P.P.
Ochruk) Kazakhskogo gosudarstvennogo meditsinskogo instituta imeni
V.M. Molotova.
(AGRANULOCYTOSIS)

OSADCHUK, T., gvardii mayor; YUSUPOV, S., starshiy tekhnikOleytenant

Motor transport operates without interruption. Tyl i snab. Sov.
Voor. Sil 21 no.12:68-72 D '61. (MIRA 15:1)
(Transportation, Military)

OSADCHUK, V.A.

Solution of the problem of an unsteady temperature field for a
plate reinforced with a stiffening rib system. Vop. tekh. rekon-
str. tela no.3:69-75 '64. (MIRA 17:11

KLIPICH, V.I.; OSADCHUK, V.I.

Problem of urethrovenous reflux. Urologia 25 no.2:59-61
Mr-Ap '60. (MIRA 13:12)
(CONTRAST MEDIA) (GENITOURINARY SYSTEM--RADIOGRAPHY)

OSADCHUK, V.I. --

Experience in the roentgenological study of the seminal vesicles.
Urologia 25 no. 4:35-40 Jl-Ag '60. (MIRA 14:1)
(SEMINAL VESICLES--RADIOGRAPHY)

OSADCHUK, V.I.; KLIPICH, V.I.

Anomalies of the seminal duct in combination with anomalies of
the kidneys and ureters. Urologiia 26 no.1:65-66 '61.

(MIRA 14:3)

(KIDNEYS--ABNORMITIES AND DEFORMITIES)

(URETER--ABNORMITIES AND DEFORMITIES)

(SEMINAL VESICLES--ABNORMITIES AND DEFORMITIES)

NEDASHKOVSKIY, I.Yu.; NIKOL'SKIY, E.V.; POTAP'YEV, S.V.; Prinsipali uchastiye:
KUZNETSOV, V.V.; OSADCHUK, V.M.; MAKSIMOV, T.M.

Recording PS reflected transformed waves in the southern part of
the west Siberian Plain. Trudy Inst. geol. i geofiz. Sib. otd. AN
SSSR no.16:172-181 '62. (MIRA 16:9)
(West Siberian Plain—Seismic prospecting)

L 1949-66 EWI(1)/EEC(k)-2/I/EWA(h) IJP(c)

ACCESSION NR: AP5023280

UR/0302/65/000/003/0056/0057
621.3.011.3:621.382.3

AUTHOR: Osadchuk, V. S. 44

TITLE: Inductive properties of transistors 25, 44

45
B

SOURCE: Avtomatika i priborostroyeniye, no. 3, 1965, 56-57

TOPIC TAGS: transistor

ABSTRACT: The inductance, resistance, reactance, and Q-factor as functions of frequency were measured on a Soviet-made P15 composite junction transistor. The inductance curve has a pronounced maximum at 350 kc. The Q-factor can be controlled by varying the resistance connected in series with the transistor base. The possibility of using such transistor as an inductance is of interest for the construction of microminiature circuits. Orig. art. has: 2 figures and 2 formulas. [03]

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: EC

NO KEY SOV: 002

OTHER: 003

ATD PRESS: 4/15

Card 1/1 mlt

ACC NR: AP7004654

SOURCE CODE: UR/0432/66/000/001/0025/0027

AUTHOR: Nekrasov, M. M. (Candidate of technical sciences); Osadchuk, V. S.

ORG: none

TITLE: Semiconductor inductive element based on an avalanche transistor

SOURCE: Mekhanizatsiya i avtomatizatsiya upravleniya, no. 1, 1966, 25-27

TOPIC TAGS: electric inductance, germanium transistor, microelectronic circuit,
SOLID STATE CIRCUIT, CIRCUIT MICROMINIATURIZATION

ABSTRACT: An avalanche transistor designed for use as an inductive element in monolithic microminiaturized solid-state circuits is described. The transistor was connected in a common-base configuration such that the collector was a-c short-circuited to the base output. In such a circuit configuration the signal applied to the emitter does not appear at the collector until the carriers diffuse through the base. Therefore the emitter voltage leads the collector current in time; i.e., the input impedance of the circuit can be represented as a series-connected inductor and a resistor. The Q-factor of the input impedance was increased because of avalanche multiplication of carriers in the collector junction. The inductive properties of such a transistor, made from n-type germanium with a resistivity of 0.2 ohm/cm, were measured (see Fig. 1). These semiconductor inductive elements, which can be used in a wide range of circuits, permit microminiaturization of electronic circuits. Orig. art. has: 2 figures and 3 formulas. [IV]

Card 1/2

UDC: 539.293:537.311.6

ACC NR: AP7004654

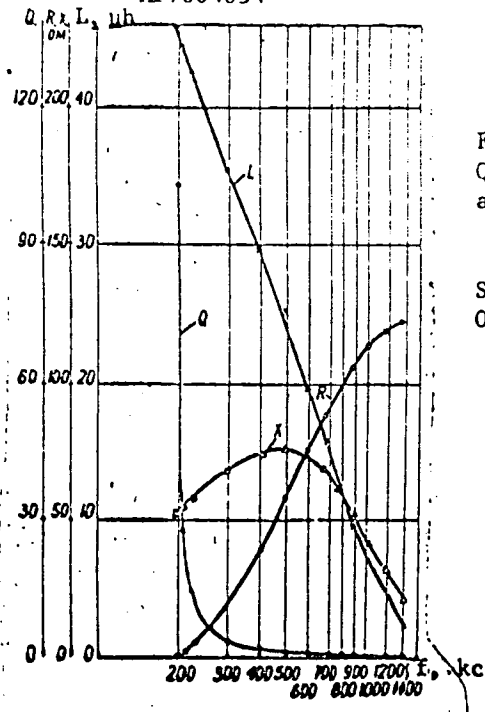


Fig. 1. Frequency dependence of inductance, Q-factor and the resistive component of the avalanche transistor

SUB CODE: 09/ SUBM DATE: none/ ORIG REF: 003/
OTH REF: 001/

Card 2/2

ACC NR: AP7004270

(N)

SOURCE CODE: UR/0432/66/000/003/0047/0048

AUTHOR: Nekrasov, M. M. (Candidate of technical sciences); Kutovoy, I. V.;
Osadchuk, V. S.

ORG: *NDM*

TITLE: The use of avalanche transistors as inductance analogs in circuits

SOURCE: Mekhanizatsiya i avtomatizatsiya upravleniya, no. 3, 1966, 47-48

TOPIC TAGS: germanium transistor, transistorized amplifier

ABSTRACT: A transistor operating in the region of avalanche multiplication has been designed at the Kiyev Polytechnical Institute for use as an inductive analog. The alloyed-junction transistor, based on n-type germanium with a specific resistance of 0.18 ohm·cm, has been employed in a resonance amplifier circuit (see Fig. 1). The

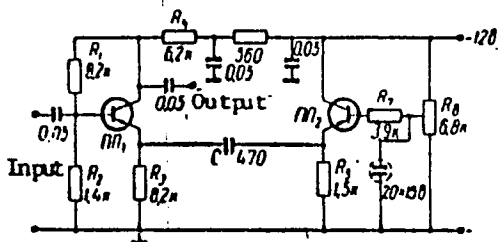


Fig. 1. Resonance amplifier circuit

Card 1/2

UDC: 539.293.011.53

ACC NR: AP7004270

amplifying stage consists of a PP_1 transistor and R_1-R_4 resistors. The series resonance stage, which consists of capacitance C_1 and a PP_2 transistor, and which acts as an analog of the inductive element, is connected in parallel to resistor R_4 . Resistors R_5 and R_7 and potentiometer R_8 determine the operating conditions of the transistor. It was found that with an increase in the emitter current the inductance of the transistor drops while its Q increases; thus by varying the d-c supply of the transistor the resonance frequency of the circuit can be shifted and its Q controlled. For Q of the order 64 at a resonance frequency of 640 kc, resistance in the emitter circuit of the PP_2 transistor was equal to 1.5 kohm, emitter current to 1.7 mamp, collector current to 2.1 mamp, and collector voltage to -12 v. In subsequent tests, resistance in the emitter circuit was equal to 22 kohm, emitter current to 0.24 mamp, collector current to 0.42 mamp, and collector voltage to -15 v. As a result of these measurements the resonance frequency was fixed at 290 kc for Q 30. For Q above 100, the circuit at first became self-oscillatory and then acted as a rectangular pulse generator. The use of inductive avalanche transistors will make possible the design of miniaturized resonance amplifier circuits as well as sinusoidal signal and pulse generators. Orig. art. has: 2 formulas and 3 figures.

SUB CODE: 09/ SUBM DATE: none/

Card 2/2

OSAFCHUK, Ye.A., kand. sel'skokhoz. nauk

Utilization of nitrogen by wheat during the process of ontogenesis. Agrobiologiya no. 244-50-253 Mrtsp '64. (MIRA 17:6)

1. L'vovskiy sel'skokhozyaystvennyy institut, Dublyany.

OSADCHUK, Yakov Erastovich; TUROVSKIY, B. redaktor; ZELENKOVA, Ye.,
~~tekhničeskij~~ redaktor.

[Porous gypsum materials] Poristye gipsovye materialy. 2-e izd.
Kiev, Izd-vo Akademii arkhitektury Ukrainskoi SSR, 1955. 41 p.
(Gypsum)

Name: OSADCHUK, Ya. E.

Dissertation: Study on the physical and mechanical properties of porous gypsum materials and methods for their production

Degree: Cand Tech Sci

Defended at
~~Affiliation:~~ Acad Construction and Architecture Ukrainian SSR, Sci Res Inst Building Materials

Publication
Defense Date, Place: 1956, Kiev

Source: Knizhnaya Letopis', No 51, 1956

SOV/97-08-11-7/11

AUTHORS: Kornilovich, Yu.Ye. (Candidate of Technical Science,
and Osadchuk, Ya.Ye. (Engineer)

TITLE: New Instrument for Approximate Testing of the Strength of
Concrete (Novaya model' pribora dlya priblizhennogo
ispytaniya prochnosti betona v izdeliyakh)

PERIODICAL: Beton i Zhelezobeton, 1958, Nr.11, pp.431-432 (USSR)

ABSTRACT: In the NII of Building Materials and Products of the
Academy of Building and Architecture, Ukrainian SSR.
(NII stroitel'nykh materialov i izdeliy Akademii
stroitel'stva i arkhitektury USSR), Candidate of Technical
Science V.V. Tsaritsyn and the authors of this article
submitted a design for an instrument for the approximate
testing of the strength of concrete without the necessity
of breaking it up. This portable instrument is not
based on a change of the depth of depression on the
surface of the concrete, but on the reading of the angle
of inclination of a pendulum, the striker of which hits
the concrete with a pre-determined force. Advantages of
this method are increased accuracy and simplicity of

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SOV/97-58-11-7/11

New Instrument for Approximate Testing of the Strength of Concrete.

mechanism and use. The designers by improving this instrument achieved high accuracy (Fig.1). The instrument was described by V.V. Tsaritsyn, Yu.Ye. Kornilovich and Ya.Ye. Osadchuk' in an article headed "Instrument for Approximate Testing of Strength of Concrete Work", published in Beton i Zhelezobeton No. 3, 1956, and also by Yu.Ye. Kornilovich in an article headed "Methods of Definition of Strengths of Concrete without Breaking It" published in "Technical Information of the Ministry of Buildings of USSR, 1957" (Tekhnicheskaya informatsiya Ministerstva stroitel'stva SSSR, 1957). Fig.2 shows details of the mechanism of this instrument; a full description of its working is given. The only shortcoming of the instrument is the necessity to use it in the vertical position only. Repeated tests and comparison of results with those obtained by other methods show an average difference in reading of $\pm 15\%$. Tests

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SOV/97-58-11-7/11

New Instrument for Approximate Testing of the Strength of Concrete

showed that the instrument is satisfactory, and mass production is advocated. There are 2 figures

Card 3/3

OSADCHUK, Ya.M., kand. tekhn. nauk; YEZHDOV, V.I., inzh.

Introducing porous gypsum materials in construction. Nov. v proizv.
stroit. mat. no.1:80-85 '59. (MIRA 12:12)
(Gypsum) (Insulation (Heat))

KORNILOVICH, Yu.Ye., kand. tekhn. nauk; OSADCHUK, Ya.E., kand. tekhn. nauk

Quality of concrete facing materials and architectural details of new
buildings in Kiev. Nov. v proizv. stroi. mat. no.1:86-100 '59.
(MIRA 12:12)

(Kiev--Façades) (Concrete)

OSADCHUK, Ya., kand.tekhn.nauk; VERZHBITSKAYA, M. [Verahbit's'ka, M.], inzh.

Structural keramzit concrete. Bud. mat. i konstr. 4 no.1:42-44 Ja-F
'62. (MIRA 15:7)

(Lightweight concrete) (Keramzit)

SOKOLOVA, N.F.; OSADCHUK, Ye.A.

Photosynthetic productivity in post-harvest crops. *Fiziol. rast.*
5 no.3:278-280 My-Je '58. (MIRA 11:6)

1. L'vovskiy pedagogicheskiy institut, L'vov.
(Photosynthesis)
(Field crops)

OSADCHUK, Ye.I.; RAPOPORT, A.N.

Increasing the efficiency in the use of drilling equipment;
a topic for discussion. Neft. khoz. 41 no.6:8-12 Je '63.
(MIRA 17:0)

OSADCHUK, Ye.I.; BUBNOV, A.A.; BLEYKH, B.A.

Selecting an efficient design for the foundations beneath drilling
derricks and sub-derrick equipment. Mash. i neft. obor. no. 12:3-7 '62.
(MIRA 18:1)

1. Trest "Volgogradneftegazrazvedka".

OSADCHUK, Ye. I.; BLEYKH, B. A.; PARSHEV, V. A.

Selecting an efficient arrangement of equipment of the
installation for drilling wells 4500-5000m. deep.

Mash. i neft. obor. no. 11:7-12 '65.

(MIRA 18:12)

1. Trest "Volgogradneftegazrazvedka".

ABRAMOV, I.A., inzh.; OSADCHUK, Ye.S., inzh.

Improve the performance of SM-580A stonecutting machines. Stroi.
i dor. mash. 8 no.1:21 Ja '63.

(MIRA 18:5)

ACCESSION NR: AP4035698

S/0057/64/034/005/0868/0872

AUTHOR: Gurov, S.V. ; Dzhafarov, T.A. ; Malinin, A.A. ; Osadin, B.A. ; Taynov, Yu.F.

TITLE: Electrode processes in high current vacuum discharges

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.5, 1964, 868-872

TOPIC TAGS: electric discharge, vacuum discharge, high current discharge, electrode erosion

ABSTRACT: Electrode erosion in high current vacuum discharges was investigated by high speed photography of the discharges and microscopic examination of the electrodes. The discharges took place between the ends of coaxial electrodes separated by teflon insulation and located in a chamber evacuated to approximately 3×10^{-5} mm Hg. The inner electrodes were 10 mm in diameter and were of steel, copper, tungsten or tin. The diameters of the outer electrodes were 20 and 28 mm; these were of lead, cadmium, tin, zinc or copper. The energy for the discharge was provided by a bank of electrolytic capacitors charged to from 200 to 300 V and having a capacity of 0.002 to 0.014 farad. The discharge was initiated by a vacuum spark. High speed photographs with a type SFR camera showed the development of a characteristic

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ACCESSION NR: AP4035608

cone of expelled erosion products. The generatrices of this cone made an angle of about 25° with the axis of the electrodes. The maximum intensity of radiation occurred approximately 15 microsec after the onset of discharge; visible expulsion of material ceased soon after this, but the electrodes continued to glow for several hundred microseconds. Time resolution photographs showed the presence of spatially limited plasma formations moving with velocities up to 1.5×10^6 cm/sec. These "microplasmoids" were 2 to 5 mm long (in the direction of motion), but their transverse dimensions were much smaller. Electrode material was deposited on the wall of the vacuum chamber near the electrodes. In addition to this, there was a well-focused beam of ionized metal in the direction of the axis of the electrodes. The diameter of this beam increased only to 3 cm in a distance of one meter. The electrodes were polished to a mirror finish before the discharge. After the discharge the anode (inner electrode) showed dark spots several millimeters in diameter, and the cathode (outer electrode) was pitted with many small "microcraters". These microcraters were very numerous near the inner edge of the cathode, while the outer region was free of them. The microcraters were from 1 to 5 microns in diameter in the copper cathodes, and from 10 to 150 microns in diameter and from 2 to 10 microns deep in the cadmium, tin and zinc cathodes. The craters increased in size with increasing discharge energy. Droplets of metal (1 to 20 microns) could be seen on the

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Card