POPOV, L.Ye.; KARPOV, G.I.

Kinetics of the development of the K-state in hardened and cold-worked nickel-chromium alloys. Issl.po zharopr.splav. 8:131-137 '62. (MIRA 16:6)

(Nickel-chromium alloys--Metallography)
(Crystal lattices)

L 12477-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/HW-2
S/185/63/008/003/005/009

58
57

AUTHOR: Bol'shanina, M. A., Popov, L. Ye. and Aleksandrov, N. A.

TITLE: Characteristics of jump deformation in nickel alloys with close-order

PERIODICAL: Ukrains'kyy Fizychnyy Zhurnal, v. 8, no. 3, 1963, 363-369.

TEXT: Deformation of many alloys in definite temperature interval and at different deformation rates occurs in a jump fashion. For investigation of the process which lies at the basis of jump flow it is necessary to conduct a detailed study of patterns of this phenomenon. This article investigates the temperature-deformation rate of Ni alloy with 17.5% Cr. It is shown that the dependence of the minimum degree of deformation ε min on temperature and the rate of deformation on temperature and the rate of deformation is described by the equation

$$\varepsilon \text{ min} = \text{const} \cdot \nu^{\rho} \cdot \dot{\varepsilon} \cdot \ell^{-U/rt}$$

where ν is the strengthening coefficient of the alloy at ε min; m=3/2; U=30 kcal/mole. A qualitative explanation is given for the characteristic of transition from jump to gradual type deformation at elevated temperatures. The article contains 3 figures and a 27-item bibliography.

Association: Siberian Technical Physics Inst., Tomsk.

Card 1/2

KUDRYAVTSEVA, L.A.; PANOVA, L.M.; POPOV, L.Ye.; SUKHOVAROV, V.F.

Effect of various atomic defects on the kinetics of the formation of the K-state in nickel-molybdenum alloys. Fiz.met.i metalloved. 15 no.3:451-455 Mr '63. (MIRA 16:4)

1. Sibirskiy fiziko-tekhnicheskiy institut.
(Nickel-molybdenum alloys--Thermal properties)

POPOV, L. Ye.; ALEKSANDROV, N. A.

Regularities of jump-type deformations. Fiz. met. i metalloved. 14 no.4:625-631 O '62. (MIRA 15:10)

1. Sibirskiy fiziko-tekhnicheskiy nauchno-issledovatel'skiy institut.

(Deformations(Mechanics))

POPOV, L.Ye.; KARPOV, G.I.; PANOVA, L.M.

Spectrum of atomic defects participating in the formation of short-range order in nickel-chromium alloys. Ukr. fiz. zhur. 8 no.2:226-232 F '63. (MIRA 16:2)

1. Sibirskiy fiziko-tekhnicheskiy institut AN SSSR, Tomsk.
(Nickel-chromium alloys) (Crystals—Defects)

S/185/63/008/002/008/012
D234/D308

AUTHORS: Popov, L. Ye., Karpov, G. I. and Panova, L. M.

TITLE: Spectrum of atomic effects participating in the process of the formation of short-range order in nickel-chromium alloys

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 2, 1963, 226-232

TEXT: The authors investigated an alloy of 16.6% Cr, 0.34% Si, 0.014% C, 0.03% S, 0.4% Fe, the rest Ni, annealed at 1000°C in vacuum and hardened in water, then subjected to cold plastic deformation. Some specimens were annealed again for 2 hours, and all were subjected to tempering. Procedures for measuring the electrical resistance and length are described. Cold deformed specimens have three stages: I) near 80 - 100°C, where ρ increases and length varies considerably, II) at 200 - 450°C, III) near 500°C, where ρ decreases. In the hardened alloy there is only one stage corresponding to the interval as in II above. Activation energies are

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Spectrum of atomic ...

0.97 + 0.15 eV for the stage I; 1.66 + 0.13 for the stage II and for the hardened alloy. It is most probable that the formation of K state at stage I is due to migration of dislocated atoms. Stage II is connected with migration of unbalance vacations and stage III with that of thermal vacancies. There are 2 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnichekiy institut (Siberian Physicatechnical Institute), Tomsk

Card 2/2

POPOV, L.Ye.; BOL'SHAKOVA, M.A.; ALEKSANDROV, N.A.

Relation between the phenomenon of abrupt deformation and the anomalous velocity dependence of resistance to deformation. Fiz.tver.tela 4 no.10:2972-2974 O '62. (MIRA 15:12)

1. Tomskiy gosudarstvennyy universitet imeni V.V.Kuybysheva.
(Deformations (Mechanics)) (Strength of materials)

POPOV, L.Ye.; LYKOVA, T.K.

Investigation of the microstructure of nickel deformed under conditions of anomalous time-velocity resilience dependence. Izv.vys.ucheb.zav.;fiz. 2:28-33 '62. (MIRA 15:7)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni V.V.Kuybysheva.
(Nickel) (Deformations (Mechanics))

S/659/62/008/000/019/028
I048/I248

AUTHORS: Popov, L.Ye, and Karpov, G.I.

TITLE: Kinetics of formation of the K-state in tempered and cold-worked nickel-chromium alloys

SOURCE: Akademiya nauk SSSR. Institut metallurgii, Issledovaniya po zharoprochnym splavam. v.8. 1962. 131-137

TEXT: The kinetics of formation of the K-state in a Ni-based alloy containing 16.6% Cr, 0.34% Si, 0.4% Fe, 0.03% S, and 0.014% C were studied in an attempt to determine the structural defects taking part in the process. The alloy specimens were tempered for 2 hrs. at 950°C (in vacuo), then heated and held for 30 min. at 1000°C, quenched in water, and annealed at 200-300°C. Another series of specimens were subjected to a similar heat treatment but the tempering temperature was 700° and the annealing temperature was 400-500°C. Specimens from the first series showed a sharp increase in electrical resistivity at temperatures exceeding 300°C. Specimens

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S/659/62/008/000/019/028
I048/I248

Kinetics of formation of the K-state...

of the second series were also characterized by an increase in electrical resistivity with temperature, but equilibrium resistivity was reached after a prolonged time only and the electrical resistivity isotherm was used to calculate the energy of activation (U) for the formation of the K-state; the average value of U was 39±2 kcal./mole, and its independence of variations in the temperature (within the range of 200-500°C) indicated that the formation of the K-state is governed by a single mechanism, probably the motion of vacancies. Part of the tempered specimens were cold-drawn and then either held at room temperature or at 100°C, or annealed at temperatures up to 600°C. The electrical resistivity of these specimens increased with time, from about 95.3 microohm.cm. immediately after the drawing to 96.1 microohm.cm. after 10^5 min. at 20°C, or to 96.2 microohm.cm. after 80 min. at 75°C, or to 96.6 microohm.cm. after 10 min. at 100°C. The average value of U at temperatures above 100°C was 36±3 kcal./mole, and it was assumed

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POPOV, L.Ye.; KARPOV, G.I.; PANOVA, L.M.; PLESHKOV, A.V.

Mechanism of K-state formation in cold-deformed nickel-chromium alloys. Dokl. AN SSSR 142 no.1:72-74 Ja '62. (MIRA 14:12)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete im. V.V. Kuybysheva. Predstavleno akademikom G.V. Kurdyumovym.

(Deformations (Mechanics))
(Nickel-chromium alloys--Electric properties)

37712
S/139/62/000/002/005/028
E193/E583

18.9200

AUTHORS: Popov, L.Ye. and Lykova, T.K.

TITLE: Investigation of the microstructure of nickel, deformed under conditions of anomalous temperature- and strain-rate dependence of its resistance to deformation

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no. 2, 1962, 28 - 33

TEXT: Deformation of nickel below 400 °C has certain specific features not observed in other metals. To those belong the non-monotonic character of the relationship established between the flow stress of nickel at temperatures below 300 °C on the one hand, and temperature- and strain rate on the other, the negative relaxation of nickel at 200 - 250 °C and the presence of a maximum on the temperature-dependence of the activation energy for creep of nickel at temperatures below 500 °C. The present investigation was undertaken to obtain additional data on the nature of these anomalies. To this end, tensile tests were

Card 1/[illegible]4

S/139/62/000/002/005/028
E193/E383

Investigation of ....

carried out on nickel wire specimens, 1 mm in diameter, at two rates of strain (0.8 and 24% per min) at temperatures varying between 20 and 600 °C. The specimens were vacuum-annealed at 950 °C, given 20% reduction and then annealed again for 1 hour at 1 000 °C, the average grain size after this treatment being 0.05 mm. The results of the mechanical tests and metallographic examination can be summarized as follows.

1) A yield ledge, present on the strain-stress diagram of specimens tested at room temperature, disappeared at temperatures higher than 200 °C.

2) The strain-stress curve in the plastic-flow region was not smooth, the type of irregularity being demonstrated in Fig. 1, where automatically recorded curves for the test temperatures of 20, 150, 200 and 300 °C (graphs a, b, c and d) are reproduced, the top curve in each diagram being taken at the low rate of strain. The irregular character of the variation in stress is most pronounced at 200 and 250 °C for specimens extended at the low rate of strain and at 250 - 300 °C for the strain-rate of 24% per min.

Card 2/4

Investigation of ....

3) Nickel exhibits an anomalous temperature- and strain-rate dependence of its resistance to deformation. This is demonstrated in Fig. 2, where the flow stress (σ, kg/mm^2), corresponding to an elongation of 25%, is plotted against the test temperature ($^\circ$C), the crosses and circles represening results obtained at strain rates of 24 and 0.8% per minute, respectively.
4) Nickel does not deform uniformly at room temperature, which is indicated by the distorted surface of the grains, the wavy slip lines and a large number of short slip lines which do not extend across the entire grain. The slip lines straighten up and become longer with rising temperature, and less distortion of the surface of the grains takes place. The grain-boundary regions are heavily deformed at temperatures below 350 $^\circ$C, movement of the grains relative to each other beginning only above this temperature.
5) As the temperature rises, the proportion of grains in which slip in more than one direction occurs changes. This is demonstrated in Fig. 3, where the proportion (%) of grains with multiple slip lines is plotted against the test temperature

Card 3/8 4

(°C), the three graphs relating to: a) grains with slip lines in two directions;) grains with slip lines in three directions and) grains in which certain regions only have slip lines in two directions, the crosses and circles relating to results obtained at strain rates of 24 and 0.8% per minute. The effects observed are discussed in detail in terms of the effect of temperature and stress on redistribution of impurities and movement of vacancies and it is concluded that the anomalous behaviour of nickel deformed at low temperatures is associated with strain ageing, which takes place in this metal below 500 °C. There are 3 figures.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V.V. Kuybysheva (Siberian Physicotechnical Institute at Tomsk State University imeni V.V. Kuybyshev)

SUBMITTED: December 31, 1960

Card 4/0 4

S/020/62/142/001/013/021
B104/B102

AUTHORS: Popov, L. Ye., Karpov, G. I., Panova, L. M., and Pleshkov, A. V.

TITLE: Formation of the K-state in cold-worked chrome-nickel alloys

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 1, 1962, 72-74

TEXT: The variations in electrical resistance and volume of cold-worked wire (2.2 mm in diameter) of a nickel alloy (16.6% Cr; 0.34% Si; 0.014% C; 0.03% S; 0.4% Fe) were investigated at different annealing temperatures. The samples were heated to 1000°C and quenched in water, and their diameters were then reduced to 1 mm. The electrical resistance dropped by 10% owing to destruction of the K-state. Subsequently, the samples were annealed for 10, 21, and 90 min at 20-600°C, intervals of 25°C. The variations in electrical resistance and length (Fig. 1) are divided into three temperature ranges: I: 20-120°C; II: 120-420°C; III: $t > 420$°C. In range I, the changes in lattice parameters, leading to the formation of the K-state, are small. The volume is changed by the elimination of lattice defects. In range II, the activation energy U required for the motion of defects

Card 1/3

leading to the formation of the K-state almost equals that of the hardened alloy. This stage is associated with the motion of vacancies. For the range II U = 1.56 ± 0.13 ev. In range III, the sharp increase in activation energy with rising temperature is due to the increasing influence of thermal vacancies. The activation energy in range I is about half as high as in range II (0.77-0.85 ev) and is close to the migration energy of dislocated atoms in nickel. There are 3 figures and 20 references: 6 Soviet and 14 non-Soviet. The four most recent references to English-language publications read as follows: I. A. Brinkman, C. E. Dixon, C. I. Meechan, Acta Met., 2, 38 (1954); R. A. Dugdale, Phil. Mag., 1, 597 (1956); G. R. Piercy, Phil. Mag., 5, no. 51, 201 (1960); L. M. Clarebrough, M. G. Hargreaves, M. H. Loretto, G. W. West, Acta Metallurgica, 8, no. 11, 797 (1960).

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete im. V. V. Kuybysheva (Siberian Physicotechnical Institute at the Tomsk State University imeni V. V. Kuybyshev)

PRESENTED: July 20, 1961, by G. V. Kurdyumov, Academician

POPOV, L.Ye.; ALEKSANDROV, N.A.

Staggered deformation in alloys of the system nickel - chromium. Izv. vys. ucheb. zav.; fiz. no. 1:16-22 '60. (MIRA 13:12)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni V.V. Kuybysheva.
(Deformation (Mechanics))
(Nickel-chromium alloys)

POPOV, L.Ye.; KARPOV, G.I.

Effect of tension and plastic deformation on the formation of the K-state in Ni-Cr alloy. Izv.vys.ucheb.zav.;fiz. no.2:111-113 '60. (MIRA 13:8)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete im. V.V. Kuybysheva.
(Nickel-chromium alloys)
(Phase rule and equilibrium)

POPOV, L.Ye.; KARPOV, G.I.; ALEKSANDROV, N.A.

Mechanism of staggered deformation in alloys. Issl. po zharopr. splav. 6:38-48 '60. (MIRA 13:9)
(Deformations (Mechanics)) (Alloys—Metallography)

Popov, L. Ye.

PHASE I BOOK EXPLOITATION SOV/4502

Akademiya nauk SSSR. Nauchnyy sovet po probleme zharoprochnykh splavov

Issledovaniya po zharoprochnym splavam, tom 6 (Investigations of Heat-Resistant Alloys, Vol. 6) Moscow, 1960. 319 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A. A. Baykova. Nauchnyy sovet po probleme zharoprochnykh splavov.

Editorial Board: I. P. Bardin (Deceased) Academician, G. V. Kurdyumov, N. V. Ageyev, Corresponding Member, Academy of Sciences USSR (Resp. Ed.), I. A. Oding, I. M. Pavlov, and I. F. Zudin, Candidate of Technical Sciences; Ed. of Publishing House: V. A. Klimov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This book is intended for research workers in the field of physics of metals and for metallurgists, particularly those working on heat-resistant alloys.

COVERAGE: This collection of 45 articles deals with various problems in the production of heat-resistant alloys. Special attention is paid to the mechanisms of deformation of such metals as aluminum, copper, iron, and nickel. Various defects and failures of metals are analyzed, and means for increasing the heat resistance and plasticity are described. Among the special problems discussed are: electrolytic conductivity of iron-aluminum alloys in the solid state; the mobility of atoms in nickel-iron alloys, depending upon defects of their crystalline structure; the kinetics of change in isolated pores; the irreversible thermal transformation of solid bodies, etc. No personalities are mentioned. References follow each article.

BAICHEV, Iv., inzh.; POPOV, M., inzh.

Prospective development of coal mining in 1961-1980. Min delo 17 no.11:3-8 '62.

1. Chlen na Redaktsionnata kolegiia, "Minno delo i metalurgiia" (for Bauchev).

POPOV, M.

"Treating Wounds With Stimulating Solutions." p.76, Izvestiia, Sofiya, Vol. 3, 1953

SO: East European Accessions List, Vol. 3, No.9, September 1954, Lib. of Congress

VASILEV, N.; DENINSKI, L.; POPOV, M.

Repeated surgery on the biliary tract. Khirurgiia 15 no.12: 1091-1095 '62.

1. Vissh voennomeditsinski institut. Nachalnik: prof. G. Krustinov.
(BILIARY TRACT) (CHOLELITHIASIS)

POPOV, M.

Popov, M., Popivanov, R., "The Problem of the Unspecified Immunostimulant of TAB Antibodies." p.185 (IZVESTIIA, Vol. 2, 1951, Sofiya.)

SO: Monthly List of East European Accessions, Vol. 3, No. 3, Library of Congress, March 1954, Uncl.

BULGARIA

N. POPOV, Chief (Zavezhdashch) Pediatric Department (detsko otdelenie) City Hospital (Gradska bolnitsa) Gorna Oryakhovitsa.

"Poisoning with Apricot Kernels."

Sofia, Suvremenna Meditsina, Vol 13, No 12, 1962, pp 47-48.

Abstract [English summary modified]: Two cases of cyanide poisoning due to ingestion of apricot kernels in small children aged 4 and 1.5 years respectively are reported and discussed. The younger child could not be saved, probably because of failure to try and induce vomiting immediately when found.

1/1

POPOV, M.

On the problem of favism in Bulgaria. Suvr. med. 14 no.1: 19-22 '63.

(FAVISM) (EPIDEMIOLOGY)

POPOV, M.

POPOV, M. Magnesian sticking substances used in construction. p. 23. Vol. 3, no. 9/10, 1956. STROITELSTVO. Sofiia, Bulgaria

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

BULGARIA/Chemical Technology. Chemical Products and Their Applications. Ceramics. Glass. Binding Materials. Concrete. - Binding Materials. Concrete and Other Silicate Construction Materials. H

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 20326

Author : Popov, M.; Gudev, N.
Inst :
Title : Silicones and Obtaining Silicone Coatings on Silicate Products.

Orig Pub : Stroitelstvo, 1957, 4, No 9, 13-19

Abstract : No abstract.

Card : 1/1

11-46

COUNTRY : BULGARIA
CATEGORY : Chemical Technology. Chemical Products and Their Applications. Ceramics. Binding Materials.* H
ABS. JOUR. : RZhKhim., No 17, 1959, No. 61641

AUTHOR : Popov, M.; Gudev, N.
INSTITUTE : -
TITLE : Additives, Accelerating Hardening and Increasing Strength of Concrete.
ORIG. PUB. : Stroitelstvo, 1958, 5, No 8, 17- 22

ABSTRACT : Prepared and tested are Bulgarian substitutes for the hardening and packing accelerators for concrete, produced by foreign firms. Investigated are properties of concrete with different content of these additives (0-10%). Favorable effects on the water absorbability, high rate of setting, rate of hardening, packing, and the deformation ability, corrosion properties etc. are revealed. Preparations BV (solution of $CaCl_2$ - $AlCl_3$ - $FeCl_3$),

*Concrete.

Card: 1/2

POPOV, M.; GAVRITOV, A.

"New air-drawing admixtures."

STROITELSTVO., Sofiia, Bulgaria., Vol. 6, No. 1, 1959

Monthly list of EAST EUROPEAN ACCESSIONS (EEAI), LC, Vol. 8, No. 7, July 1959, Unclas

POPOV, M.; GUDEV, M.

Flooring of polyvinyl-acetate latex. p. 19

STROITELSTVO. (Ministerstvo na stroezhite) Sofia, Bulgaria. Vol. 8, no. 8, 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 12, December 1959
Uncl.

POPOV, M.;GUDEV, N.

Latex cements. p. 18.

STROITELSTVO. (Ministerstvo na stroezhite) Sofiia, Bulgaria. Vol. 6, no. 11, 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, No. 2, Feb. 1960.
UNCL

POPOV, M., inzh.; GEORGIEV, G., inzh.

Standards for drawings in building. Natsionalizatsiia 14 no.
10:32-33 '64.

KAMENOV,E.; POPOV, M.

Food poisoning recorded in Bulgaria during the period of 1952-1963. Suvr. med. (Sofiia) 15 no.9:13-21 '64

POPOV, M.

Quality and reliability in the center of attention. Metallurg 10 no.5:35 My '65. (MIRA 18:6)

1. Nachal'nik Otdela tekhnicheskogo kontrolya Luganskogo truboprokatnogo zavoda.

POPOV, M., polkovnik, kand. filos. nauk

Correlation of the objective and subjective in armed fighting.
Kommunist Vooruzh. Sil 46 no.10:9-18 My '65.
(MIRA 18:6)

L 45256-66
ACC NR: AN6020713 (N) SOURCE CODE: UR/9008/66/000/162/0002/0003

22
B

AUTHOR: Popov, M., (Colonel, Candidate of Philosophical Sciences)

ORG: none

TITLE: Importance of the subjective factor in combat

SOURCE: Krasnaya zvezda, 14 Jul 66, p. 2, col. 1-7, p. 3, col. 1-4

TOPIC TAGS: military psychology, military personnel military training, military science

ABSTRACT: The author discusses the correlation between the objective and subjective factors in modern warfare, and analyzes the latter in detail. This defines as the fully conscious part of the activity of troops and commanders, their political outlook, morale, knowledge, experience, state of organization and will, and the energy required to cope with combat assignments. In combat conditions,

Card 1/2

BULGARIA

POPOV, M., Chair of Hygiene (Head Prof. M. Lukanov), ISUL

"Food Intoxications Registered in Bulgaria in 1964"

Sofia, Suvremenna Meditsina, Vol 17, No 4, pp 325-332

Abstract: In 1964 in Bulgaria 110 instances of food intoxications were registered as compared with 101 in 1963. Food intoxications in 1964 affected 1610 people, of whom 5 died. The greatest number of cases was in the summer, with a maximum in August. The intoxications were due in the majority of cases (66%) to the consumption of meat and meat products. They were predominantly (in 91% of cases) of bacterial origin. Salmonellosis toxicoinfections increased to a great extent; they were primarily due to Salmonella typhi murium. Staphylococcus intoxications also became more frequent. Under the circumstances, an increased effort on the part of the sanitary-antiepidemic organizational network is required. The situation which exists shows that the food refrigeration facilities are inadequate. Graphs and tables. Manuscript received Apr 65. Russian and English summaries.

1/1

Popov, M. Nouvelle méthode pour la solution des circuits électriques à éléments localisés. Com. Acad. R. P. Romîne 2, 609-614 (1952). (Romanian. Russian and French summaries)

1 - F/W

Popov, M.

Marinescu, M., et Popov, M. Une méthode nouvelle pour l'analyse des ~~phénomènes~~ paramétriques. Com. Acad. R. P. Romîne 2, 615–627 (1952). (Romanian. Russian and French summaries)

I - F/W

(1)

Popov, M.

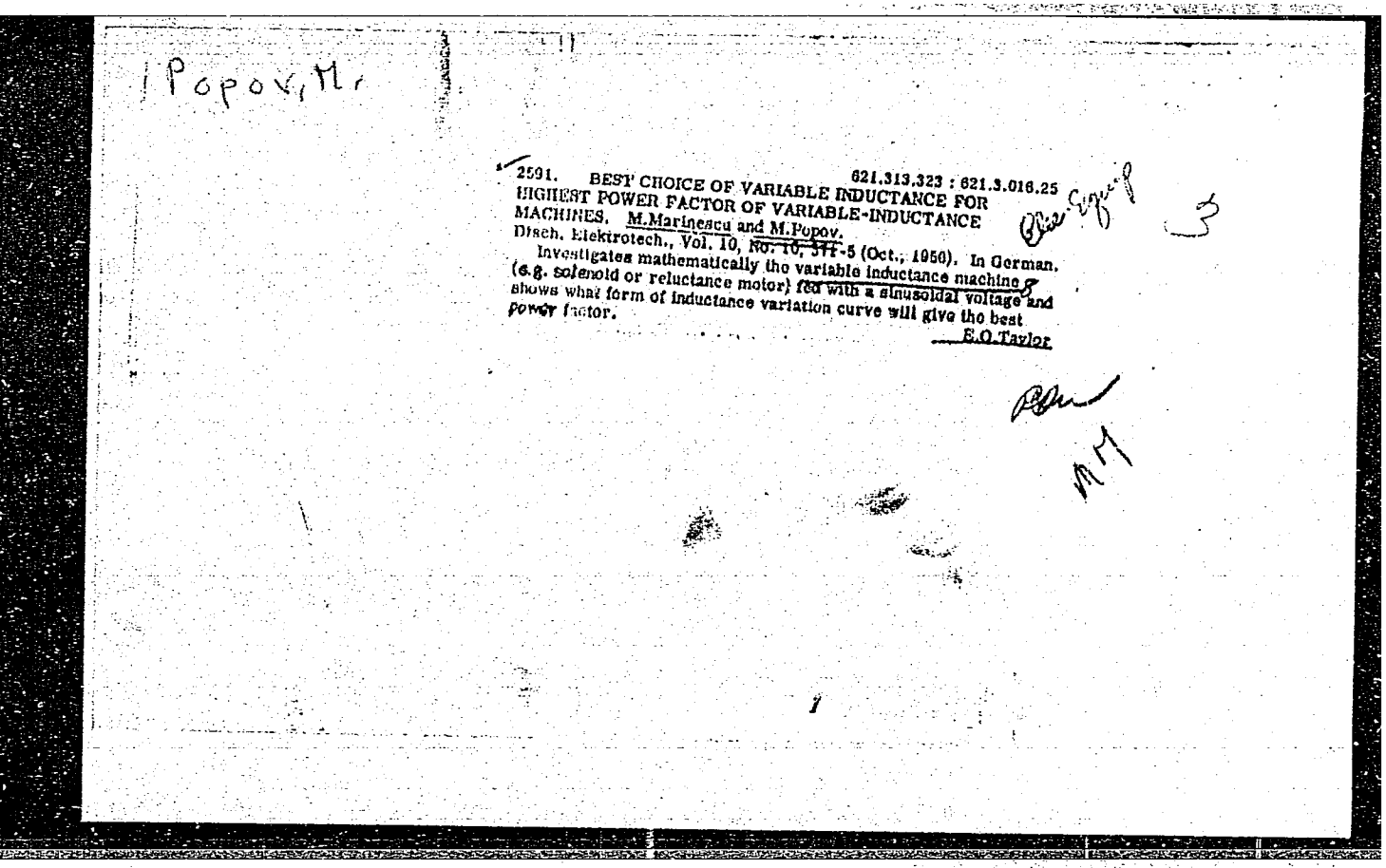
Marinescu, M., et Popov, M. Représentation du circuit en série à inductance variable sous forme de réseau aux paramètres constants. Com. Acad. R. P. Romîne 4, 243–250 (1954). (Romanian. Russian and French summaries)

1 - F/W

POPOV, M. ; MARINESCU, M.

Best form of the variation of inductance and of the factor of the maximum power of machines with variable inductance. p. 545.
(COMUNIC/RILE. Rumania. Vol. 5, no. 3, Mar. 1955)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.



1 Popov, M.

2591. BEST CHOICE OF VARIABLE INDUCTANCE FOR HIGHEST POWER FACTOR OF VARIABLE-INDUCTANCE MACHINES. M.Marinescu and M.Popov. 621.313.323 : 621.3.016.25
Disch. Elektrotech., Vol. 10, No. 10, 311-5 (Oct., 1950). In German.
Investigates mathematically the variable inductance machine (e.g. solenoid or reluctance motor) fed with a sinusoidal voltage and shows what form of inductance variation curve will give the best power factor.
E.O.Taylor

POPOV, M.

A sufficient criterion of stability, based on the approximate determination of the position of characteristic values of a matrix in the complex plane
p. 673

STUDII SI CERCETARI DE ENERGETICA. Bucuresti, Rumania. Vol. 7, no. 4, 1957

Monthly List of East European Accession. (EEAI) LC, Vol. 8, no. 9, Sept. 1959
Uncl.

POPOV, M.: MITRICA,I: DOCIU,E

Aspects of the scientific research in the field of metal cutting in Rumania.
p.8-5

METALURGIA SI CONSTRUCTIA DE MASINI. (Ministerul Industriei Metelurgice si Constructiilor de Masins si Asociatia Stiintifica a Inginerilor si Technicienilor din Rominia) Bucuresti, Rumania
Vol. 11, no.10 Oct. 1959

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no.2 Feb. 1960

Uncl.

POPOV, M.; MITRICA, I.; DECU, E.

Centralizing installation of measurement systems for the study of cutting machines and tools. p.923

STUDII SI CERCETARI DE MECHANICA APLICATA. Academia Republicii Populare Romine
Bucuresti, Rumania
Vol. 10, no.3, 1959

Monthly List of East European Accessions (EEAI) LC., Vol. 9, no.1, Jan. 1960
Uncl.

80419
RUM/8-59-1-14/24

25.7000

AUTHORS: Popov, M., Mitrică, I., Deciu, E.

TITLE: On the Optimum Cutting Conditions With Lathe Tools Armored With Mineral Ceramic and Steel Tips

PERIODICAL: Studii si Cercetări de Mecanică Aplicată, 1959, Nr 1, pp 219 - 240 (RUM)

ABSTRACT: A comparing study of lathe tools armored with mineral ceramic tips and steel tips has been previously accomplished [Ref 1], establishing the optimum geometrical parameters in case of machining "OL-70" and "OL-60" steels. Subject article presents experiments conducted with the same steels by using "ENC_1" mineral ceramic tips (hardness: 65-74 H_{RC}) made by the Institutul de cercetări stiintifice pentru constructii, materiale de constructii si industrializarea a lemnului (Institute for Scientific Research of Constructions, Construction Materials and Industrial Processing of Wood), and "S_1" steel tips (hardness: 70-78 H_{RC}) made by Harith. Similar to the previous articles [Refs 1, 2, 3], this study is based on the tracing of the wearing off evolution. The following problems have been studied by the authors: a) Influence of feed and cutting depth on the wear of the cutting tool; b) Influence of the speed on the wear of the cutting tool; c) Influence of feed and cutting depth on the speed;

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On the Optimum Cutting Conditions With Lathe Tools Armored With Mineral Ceramic and Steel Tips

and d) Influence of the cutting parameters on the effective power. a) Influence of feed and cutting depth on the wear of the cutting tool: Many experiments have been conducted in order to study the influence of feed, maintaining a constant cutting speed and depth. The correlations $T = f(s)$ are presented by (Figures 1 and 2). The study of the influence of the cutting depth was established in the same way, maintaining a constant cutting speed and feed. The results are given by (Figures 3 and 4). All curves presented by (Figures 1, 2, 3, 4) can be linearized in logarythmic coordinates. b) Influence of the speed on the wear of the cutting tool: The connection between the speed and the hardness of steel tips is expressed by the formula:

$$vT^n = C_1, \qquad (1).$$

This relation is valid for steel tips and mineral ceramic tips. Thus, the influence of feed and cutting depth can be neglected. The linearization of the experimental curves can be made in logarythmic coordinates in both cases. Some results with steel tips are expressed by (Figures 5 and 6) and with mineral ceramic tips by (Figures 7 and 8). The values of the "n" exponent in case of mineral ceramic tips are expressed by Table 1, which

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shows that "n" depends from the processed material and the type of tip used. This maximum deviation $\Delta n_{max}\%$ of "n" against the average are given by Table 2. The effects of these deviations are reduced. For the determination of the correction coefficient K_T of the economical speed in function of the hardness, the following relation is used [Ref 3]:

$$K_T = \frac{v_T}{v_{60}} = \left(\frac{60}{T}\right)^n , \qquad (2),$$

in which v_T is the cutting speed for a hardness of T, m/min and v_{60} the cutting speed for a hardness of 60 min, m/min. The values of the K_T coefficients are given by Table 3. The adimensional correction coefficients are determined by using the relation:

$$K_\tau = (\tau\ \gamma)^n , \qquad (3).$$

K_τ for $\gamma = 5^0$ has the maximum error in case of "OL-60" steel, machined with S_1 tips. In case of machining "OL-60" steel with ENC_1 tips, the maximum error appears at the K_γ coefficient if $\gamma = -10^0$. In case of machining "OL-70" steel with S_1 tips, the K_T coefficient has the maximum error for a hardness of 120 minutes. Machining "OL-70" steel

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with ENC_1 tips, the maximum error appears at the K_γ coefficient if $\gamma = -5^0$. The maximum error of the adimensional correction coefficients is smaller than that of the "n" exponent. The value of the nondimensional correction coefficients of the speed can be computed with an admissible error. c) Influence of feed and cutting depth on the speed; formulae for optimum economic speeds: Starting with the cutting speed formula:

$$v_T = \frac{C}{t^x s^y} K, \qquad (4),$$

in which v_T is the optimum cutting speed for an economical hardness T of the tool, m/min; t is the cutting depth, mm; s is the tool feed, mm/rev; C is the constant in function of the machined material; x and y are the exponents in function of the machined material; K is the overall correction coefficient of the speed, which has the following shape:

$$K = K_1, K_2, K_3, K_4, K_T, K_m, K_\gamma, K_\alpha, K_{\alpha_1}, K_\chi, K_{\chi_1}, K_\lambda, \qquad (5)$$

in which K_γ, K_α, $K_{\alpha 1}$, K_χ, $K_{\chi 1}$, K_λ are the geometrical correction coefficients in function of the angles γ, α, α_1, χ, χ_1, λ; K_1 is the correction coefficient in function of the mechanical characteristics of

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the machined material; K_2 is the correction coefficient in function of the used cooling system; K_3 is the correction coefficient in function of the sharpening mode of the tip; K_4 is the correction coefficient in function of the homogeneity of the strata; K_T is the correction coefficient in function of the economical hardness of the lathe tool; and K_m is the correction coefficient in function of the tip material; the authors establish the following formulae at the interval t = 0.1 - 3 mm and s = 0.1 - 0.8 mm/rev:

$$v_{60} = \frac{98.4}{t^{0.15} s^{0.38}} \quad (7)$$

for "0L-60" steel machined with S_1 tip;

$$v_{60} = \frac{77.2}{t^{0.32} s^{0.43}} \quad (8),$$

for "0L-70" Steel machined with S_1 tip;

$$v_{60} = \frac{93.1}{t^{0.17} s^{0.26}} \quad (9),$$

Card 5/9 for "0L-60"steel machined with ENC_1 tip; and

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$$v_{60} = \frac{76.6}{t^{0.30}\ s^{0.27}} \qquad (10)$$

for "0L-70" steel machined with ENC_1 tip. To facilitate the calculations, the formulae (Nr 7, 8, 9, 10) can be represented by nomograms [Ref 3]. The optimum cutting speed of ENC_1 tips are lower than of S_1 tips. A comparing nomogram concerning only the feed is represented by (Figure 9). d) Influence of the cutting parameters on the effective power. Formulae for the determination of the machining power: Based on a general formula which comprises the influence of the different parameters of the optimum cutting conditions:

$$N = C_2 t^{x1}\ s^{y1}\ v^{z} \qquad (11),$$

in which N is the effective cutting power, kw; C_2 is the constant, in function of the machined material and other parameters comprised in the overall correction coefficient K; t is the cutting depth, mm; s is the tool feed, mm/rev; v is the machining speed, m/mm; x_1, y_1, z are the exponents in function of the machined material, the authors have determined the following formulae of the consumed effective cutting power:

$$N = 0.0384\ t^{0.87}\ s^{0.73}\ v, \qquad (12)$$

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in case of "0L-60" steel machined with S_1 tip;

$$N = 0.0452\ t^{0.89}\ s^{0.68}\ v, \qquad (13),$$

in case of "0L-70" steel machined with S_1 tip;

$$N = 0.0387\ t^{0.93}\ s^{0.96}\ v, \qquad (14),$$

in case of "0L-60" steel machined with ENC_1 tip; and

$$N = 0.0387\ t^{0.89}\ s^{0.84}\ v, \qquad (15),$$

in case of "0L-70" steel machined with ENC_1 tip. A comparing of the consumed effective power in case of the machining of the same steel but with different tips, is presented by (Figure 10). All tips (S_1 and ENC_1) had a wear of: $\delta\alpha_1 < 0.4$ mm. Inserting the expressions of the optimum speeds given by the relations (Nr 7, 8, 9, 10) into the formulae of the effective power (Nr 12, 13, 14, 15), the authors have obtained the expressions of the effective power in case of machining with the optimum speed v_{60}:

$$Nv_{60} = 3.78\ s^{0.35}\ t^{0.72}, \qquad (16),$$

Card 7/9 in case of "0L-60" steel machined with S_1 tip;

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$$Nv_{60} = 3.58\ s^{0.70}\ t^{0.76}, \quad (17),$$

in case of "0L-60" steel machined with ENC_1 tip;

$$Nv_{60} = 3.49\ s^{0.25}\ t^{0.57}, \quad (18)$$

in case of "0L-70" steel machined with S_1 tip; and

$$Nv_{60} = 2.96\ s^{0.57}\ t^{0.59}, \quad (19),$$

in case of "0L-70" steel machined with ENC_1 tip. In case of using nomograms, the respective K_i speed correction coefficients have to be used if not all conditions are matched. Following the presented results based on approximately 4,000 experimental determinations made with two types of steel, the authors have drawn the following conclusions on the behavior of mineral ceramic tips, compared with steel tips: The hardness variation curves in function of the speed or cutting depth show the same behavior with both types of tips. The hardness variation law in function of the cutting speed keeps the same shape independently from the type of tip used. The general formulae (Nr 4 and 11) of the optimum cutting speed and of the consumed effective power of steel tips can also be extended upon the mineral

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ceramic tips because of their properties, but can be reduced by choosing a respective variation of the cutting parameters. Optimum working conditions with immediate practical use can be established for both types of tips. The wear of "ENC_1" mineral ceramic tips, increases faster than that of "S_1" steel tips, which leads to a reduction of the accuracy during long time machining. Based on this article the authors conclude that tools with steel tips could at least partially be replaced by tools with mineral ceramic tips.
There are: 14 graphs, 3 tables and 9 references, 4 of which are Rumanian, 3 Russian and 2 French.

SUBMITTED: July 7 , 1958

Card 9/9

R/003/62/000/001/006/007
D272/D304

AUTHORS: Popov, M., Mitrica, I. and Deciu, E.

TITLE: The influence of the bevel and the rounding radius upon the wear of the cutting tool

PERIODICAL: Mecanică aplicată, 13, no. 1, 1962, 205-218

TEXT: Results are given of research undertaken at the Institutul de mecanică aplicată 'Traian Vuia' (Institute of Applied Mechanics 'Traian Vuia'). It was first determined that a bevel face along the main edge of the lathe cutting tool can reduce tool wear considerably, if it is realized with consideration of its two parameters -- its width f and its angle of inclination γ_f. Examination of the equilibrium of the plastic deformations in the cutting zone has indicated the existence of only one angle γ_f which renders maximal durability; a theoretical, as well as practical, investigation has indicated a close connection between γ_f and the principal placing

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angle α. Maximum durability is obtained when they are equal in value: $-\gamma_f = \alpha$. It was also determined that, in addition, higher durability is obtained in proportion to the difference between the optimum angle γ_f and the optimum raking angle γ_{opt}. It was next determined that the width f must absolutely be smaller than the plastic deformations on the cut in its zone of contact with the raking face, and best results are obtained if $f = (2.8 - 2.0)a$ (where a is the width of the cut); as the zone of plastic deformations in the cut increases with increase of the cut width, it is possible to perform larger widths of the bevel. This bevel (along the main cutting edge) increases further the resistance to shocks and resistance to fragmentation of the edges. A rounding off of the tool tip was found to increase the durability of the tool in a manner similar to the main working angle γ. As the length of the cutting edge in contact with the item material increases in proportion to the rounding radius, thus increasing the contact surface on the main placing face of the tool and reducing the specific pressures

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on this contact surface, the wear will evidently be reduced. As in the case of the choice of the rounding-off radius r must depend on the rigidity of the system, recommending that the following limits are not exceeded: $r = (2 - 4)s = (0.2 - 1)t$ (where s - the advancing rate in mm/turn and t - the depth of the cut in mm), when the durability of the tool can be increased by 30 - 80%, in proportion to r. There are 12 figures and 5 Soviet-bloc references.

SUBMITTED: July 29, 1961

Card 3/3

POPOV, M., inzh.

Economy of electric power in the exploitation of compressor installations. Elektroenergiia 13 no.12:20-25 D '62.

POPOV, M.; MITRICA, I.; DECIU, E.

Turning Rumanian carbonaceous steel. Metalurgia constr mas 14 no.9:816-824 S '62.

1. Institutul de mecanica aplicata Traian Vuia.

IGROV, M. (Sofia, Rakowski Str. 157)

Examination of potential flows through plane radial blade grids by means of conformal transformation and electro-analogy. Periodica polytechn eng 7 no.4:285-297 '63.

MILEVA, G.; OBRETENOV, N.; POPOV, M.

Silver minerals from the Chiprovtsi deposits, Mikhaylovgrad District. Spis Bulg geol druzh 25 no.3:289-294 '64.

1. "NIPRORUDA" Institute. Submitted February 6, 1964.

MOSHCHIN, I., instruktor-aviamodelist (Rzhev, Kalininskoy obl.); BLINOV, B., inzh.-konstruktor (Moskva); PATRUSHEV, A.; GROMOV, V., instruktor aviamodel'noy laboratorii (Penza); TIMOFEYEV, A., obshchestvennyy instruktor (Leningrad); POPOV, M.

The new direction in airplane modeling. Kryl. rod. 15 no.12:26 D '64. (MIRA 18:3)

1. Rukovoditel' aviamodel'nogo kruzhka Doma pionerov, Sovetsk, Kirovskoy oblast (for Patrushev). 2. Predsedatel' aviamodel'nogo komiteta Federatsii aviatsionnogo sporta Ukrainy, Kiyev (for Povov).

POPOV, M.

AK Cephei. Per.zvezdy 14 no.1:61-62 Ja '62. (MIRA 17:3)

1. Otdel peremennykh zvezd Moskovskogo otdeleniya Vsesoyuznogo astronomo-geodezicheskogo obshchestva.

ANCHEV, V., kand.med.nauk, doktor; POPOV, M. prepodavatel'-assistent doktor (Sofiya)

History of Russian-Bulgarian cooperation in the field of medicine and public health. Sov. zdrav. 22 no.6:80-85'63. (MIRA 16:9)

(BULGARIA—PHYSICIANS)

POPOV, M.

Familial hypersensitivity to streptomycin. Suvr. med. 14 no.11:39-40 '63.

Apropos of bites by poisonous snakes in Bulgaria. Suvr. med. 14 no.11:40-44 '63.

KARAMISHEV, Iv., dots.; GEORGIEV, G.; POPOV, M.

A rare case of hydatid cholecperitoneum. Khirurgia (Sofiia) 16 no.11:1031-1033 '63.

1. Iz khirurgichnoto otdelenie pri Okrushnata bolnitsa, Pleven.

POPOV, Mir.

Studies on the origin, development and nature of the Asclepian cult. Nauch. tr. vissh.med.inst. Sofia 42 no.3: 27-39 '63.

The principle of free or charge hospital treatment in Bulgaria.
41-51

1. Predstavena ot prof. d-r. A.Panev, rukovoditel na Katedrata po organizatsiia na zdraveopazvaneto i istoriia na meditsinata, Vissh. med. inst., Sofiia.

*

[illegible], As.; ANCHEV, V.; POPOV, Mir.

Social principles of mental hygiene. Nauch. tr. vissh. med. inst. Sofia 40 no.6:49-55 '61.

1. Predstavena ot prof. As. Panev, rukovoditel na Katedrata po organizatsiia na zdraveopazvaneto i istoriia na meditsinata.

(MENTAL HYGIENE sociol)

PANEV, As.; IZRAEL, S.; POPOV, Mir.

The medicine of the Greek and Bulgarian peoples. Interrelations, influences and age-long collaboration. Nauch. tr. visch. med. inst. Sofia 41 no.6:1-10 '62.

1. Predstavena ot prof. As. Panev.
(HISTORY OF MEDICINE)

POPOV, Mihai, ing.; DECIU, Eugen, ing.; MITRICA, Ilie, ing.

Conditions for the economical steel splintering, required by STAS (state standard) 500-49. Metalurgia constr mas 13 no.10:873-879 O '61.

(Metal cutting) (Steel)

R/009/60/000/009/003/008
A125/A026

AUTHORS: Popov, Mihail, Paul, Lecturer, Engineer, Candidate of Technical Sciences, Chief of Laboratory; Deciu, Eug., Engineer, Researcher; Mitrică, Ilie, Engineer, Researcher

TITLE: Use of Metal-Ceramic Tips in Lathe Work

PERIODICAL: Metalurgia şi Construcţia de Maşini, 1960, No. 9, pp. 796 - 801

TEXT: Subject article deals with metal-ceramic tips and presents some investigations conducted in many countries. Brief reference is made to the composition of metal-ceramic tips, their grinding and fastening to the shank. Isayev, Zorev and Kuchma (Ref. 1) have presented various possibilities of fastening metal-ceramic tips to the tool shank. The Rumanian INCERC has developed a metal-ceramic tip named ENC, which revealed good results. Experiments with ENC_1 tips regarding the optimum geometric elements, the best machining conditions, etc, have been conducted in the Laboratory of the Institutul de Mecanică Aplicată "Traian Vuia" (Institute of Applied Mechanics "Traian Vuia") of the Academia R.P.R. (Rumanian Academy), in cooperation with Engineer M. Calciu. The experiments have been conducted on "OL 60" and "OL 70" steels (STAS 500-49) in accordance with methods used at carbide tipped tools. The results have been presented in two previous papers (Refs.

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5 and 6). Subject article contains a part of the conclusions being of immediate importance to those who work with such tips. The plastic and elastic deformations occuring in the detaching zone of the shavings are very favorable. Thus, the same optimum geometry has been obtained with the ENC_1 tip having a hardness of $HR_c = 65 - 74$ as with carbide tipped tools, when machining the same steel. The point of the tool was $r \approx 0.5$. The deviations from the optimum values of the cutting edge angles should not exceed $\pm 1^o$. Because of the initial shape of the ENC_1 tips, experiments with an end clearance $\chi = 45^o$ could be accomplished. Regarding the optimum machining conditions, a greater dispersion of results could be established with ENC_1 tips than with carbide tip. The economic cutting speed can be computed.

$$v_T = \frac{C}{t^x s^y} K \qquad (2)$$

in which v_T = economic speed for a durability of T, in m/mm; t = cutting depth in mm; s = feed in mm/rev; K = the overall correction factors. The useful power consumed can be computed with the formula $N = C_2 t^{x_1} s^{y_1} v^z$ (kw). (3). The results obtained in machining "0L 60" and "0L 70" steels with ENC_1 tips are slightly below the results obtained with S_1 and $I_{15} K_6$ carbide tips, but are comparable with the results obtained with S_3 and $T_5 K_{10}$ carbide tips. The results can be improved by lapping the tips, by using tool points with a greater radius (up to 2 mm), by ap-

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plying a 0.2 mm wide chamfer along the cutting edge, using a better shank, improving the tip quality, etc. There are 5 figures, 3 tables, 1 photograph and 6 references: 2 Rumanian, 1 Soviet, 2 French and 1 German.

ASSOCIATION: Secţia de maşini şi mecanisme, Institutul de mecanică "Traian Vuia" (Section of Machines and Mechanisms, Institute of Applied Mechanics "Traian Vuia")

Card 3/3

POPOV, Mikhail D., d-r, st. n. sutr.

Naphtha growth substance, a new stimulant of vital functions. Priroda Bulg 13 no.4:36-41 Jl-Ag '64.

1. M.Popov Institute of Biology of the Bulgarian Academy of Sciences.

PANEV, As.; POPOV, Mir.

Hospital history in our country. The early Byzantine church-hospital in Plovdiv in the 5th and 6th centuries. Nauch. tr. vissh. med. inst. Sofia 41 no.6:11-15 '62.

1. Predstavena ot prof. As. Panev.
(HOSPITALS)

BOROVSKIY, Boris Yevstaf'yevich; POPOV, Mikhail Dmitriyevich; PRONSHTEYN, Mark Yakovlevich; YEMEL'YANOVA, Ye.V., red.; CHERVOVA, M.S., red.

[Handbook for the motor-vehicle driver] Spravochnaia kniga avtomobilista. Izd.2., perer. i dop. Leningrad, Lenizdat, 1964. 639 p. (MIRA 17:12)

POPOV, M.; DECIU, E.; MITRICA, I.

A boundary condition in the hydrodynamic analogy of lamination. p. 2339.

Academia Republicii Populare Romine. Institutul de Mecanica Aplicata. STUDII SI CERCETARI DE MECANICA APLICATA. Bucuresti, Rumania. Vol. 8, no. 4, 1957.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 8, Aug 1959 Uncl.

POPOV, M., inzhener (Leningrad)

Automatic electric plowing. Tekh.mol.23 no.1:10-11 Ja'55.
(Plowing) (MLRA 8:3)

POPOV, M.; MITRICA, I.; DESIU, E.

A comparative study of the geometric parameters of the cutting tools fitted with mineral-ceramic plates and plates on the basis of metallic carbides. p.1077

STUDII SI CERCETARI DE MECANICA APLICATA. Academia Republicii Populare Romine Bucuresti, Rumania
Vol. 9, no.4, 1958

Monthly List of East European Accessions (EEAI) LC., Vol. 9, no.1, Jan. 1960
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POPOV, M.

The study of specific pressures upon the contact surface in the laminating process.

P. 557(Academia Republicii Populare Romine. Institutul de Mecanica Aplicata. STUDII SI CERCETARI DE MECANICA APLICATA. Vol. 7, no. 2, Apr./June 1956. Bucuresti, Rumania)

Monthly Index of East European Accessions (EEAI) LC.Vol. 7, no. 2, February 1958

POPOV, M., podpolkovnik

Jet engine. Voen. znan. 39 no.5:24-25 My '63. (MIRA 16:5)
(Jet propulsion)

POPOV, M.

The most improtant objective of the community. NTO 4 no.9:6-7 S '62. (MIRA 16:1)

1. Zamestitel' predsedatelya Gosudarstvennogo komiteta Soveta Ministrov RSFSR po koordinatsii nauchno-issledovatel'skikh rabot.

(Research, Industrial)

Popov, Mincio

Incercări pe Modele cu Pulverizarea Fluidelor. Mincio Popov. *Stud. Cerc. Mec. Aplic.*, Jan-Mar., 1958, pp. 9-27 in Rumanian. Study to establish similitude laws for spraying of liquids and to obtain experimental verification.

L

Popov, M.

Marinescu, Matei, et Popov, Mihai. Sur le spectre des courants dans les circuits à inductance variable. MS Com. Acad. R. P. Romîne 3, 327–335 (1953). (Romanian. Russian and French summaries)

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Popov, Mihai

/ Marinescu, Matei, et Popov, Mihai. Les relations énergétiques dans le spectre des courants des circuits en série à inductance variable. Le travail mécanique asynchrone. Com. Acad. R. P. Romîne 3, 337–340 (1953). (Romanian. Russian and French summaries)

1 - P/7

(1)

107-57-2-11/56

AUTHOR: Popov, M. and Landsman, A., members of DOSAAF at "Serp i Molot" factory

TITLE: The Efforts of Active Workers. Let Us Create Amateur Radio Clubs (Silami aktiva. Sozdadim samodeyatel'nyye radiokluby)

PERIODICAL: Radio, 1957, Nr 2, p 13 (USSR)

ABSTRACT: Recently an amateur radio club was organized by a lower-level DOSAAF organization at the "Serp i Molot" factory, Kharkov. Leonid Osipovich Dubrovskiy, Chairman of the factory DOSAAF committee, delivered a report on the subject at the organizational meeting. Radio amateurs A. Sitchenko, V. Polevik, Landakov, Ledovskiy, Logvinenko, and others, seconded the motion to organize a new amateur radio club. After that, the motion was passed unanimously. The management of the plant, the Communist Party organization, and the trade union organization have helped to organize the new club. Rooms were allotted for radio operator classes and for a radio station. Over 3,000 rubles worth of tools and instruments were given to the organization. Military units associated with the "Serp i Molot" factory have given 10 RSI type and 1 A7A type radio stations for experimental work. Among the students of new radio classes are Nina Derevyanko, a member of the Komsomol and a turner in the automatic department, Yuriy Kolomiytsev, an electrician, Dmitriy Kochkarev, a milling machine operator, and many

Card 1/2

POPOV, M.

TECHNOLOGY

Periodicals: STUDII SI CERCETARI DE ENERGETICA. Vol. 8, no. 1, 1958

POPOV, M. Use of the Bezout method in the theory of stability. p. 87.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 2, February 1959, Unclass.

Card : 1/1

3

The role of enzymes in the rancidifying process of meals. V. Kretovich, M. Popov, and [illegible] Nevyabina (Technol. Inst. Food Ind., Moscow). *Muknomol'.-Elevator. Prom.* 22, No. 10, 14-16(1956).—The stability of steamed and unsteamed oatmeal and wheat meal in storage is compared. The acid no. of the oil in oatmeal steamed 5 min. rose from 21.3 to 29.0 during a 72-day storage period, whereas the oil of unsteamed controls rose to 108 during the same period. With wheat meal samples steamed 5 min. [illegible] increased from 19.6 to 25.3 and in the unsteamed control from 24.0 to 44.0. Onset of rancidity in steamed and unsteamed samples, resp., during storage was evident as follows: oatmeal 40, 0; oatmeal gruel 72, 28; wheat meal 16, 0; wheat-meal gruel not up to 40 days, 27 days.

M. M. Piskur

POPOV, M.

Comditions of "minimum weight" of parametric machines. p. 467.
STUDII SI CERCETARI DE ENERGETICA. Bucuresti.
Vol. 5, no. 3/4, July/Dec. 1955.

SOURCE: East European Accessions List (EEAL), Library of Congress,
Vol. 5, No. 11, Nov. 1956.

POPOV, M. A.

PHASE I BOOK EXPLOITATION SOV/4555

Voytikov, Viktor Vladimirovich, Ivan Iosifovich Drong, Engineer, Petr Silovich Dzhulay, Mikhail Amvrosiyevich Popov, and Petr Yakovlevich Pritsker

Trelevochnyy traktor TDT-60 (The TDT-60 Skidding Tractor) Moscow, Goslesbumizdat, 1958. 265 p. 40,000 copies printed.

Ed. (Title page): Ivan Iosifovich Drong, Engineer; Ed. (Inside book): N.S. Reshetnikov; Ed. of Publishing House: A.M. Osokina; Tech. Ed.: A.M. Bachurina.

PURPOSE: This book is intended for workers who are studying the TDT-60 skidding tractor for the purpose of determining how it may be used in forestry exploitation.

COVERAGE: The book contains a technical description of the TDT-60 and instructions for its operation, servicing and maintenance. The TDT-60, which was built by the Minskiy traktornyy zavod (Minsk Tractor Plant) is said to be a powerful caterpillar tractor for forestry exploitation, exceeding in performance the KT-12A and TDT-40 skidding tractors. The design and the high load capacity of the TDT-60 make it

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The TDT-60 Skidding Tractor SOV/4555

suitable for various operating conditions in forestry. Its hydraulic drives increase maneuverability, control of attachments (bulldozer, snow plows), and make it adaptable for auxiliary logging operations. According to the authors the forestry industry has not yet fully explored all possible uses of the TDT-60 tractor. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

Card 2/6

POPOV, M.A.

Exhibition of reagents of the Czechoslovak Republic in Novosibirsk. Zav.lab. 26 no.6:776 '60.
(MIRA 13:7)
(Czechoslovakia--Chemical tests and reagents)

RYUMSHIN, G.I.; POPOV, M.A.

Three cases of fracture of the odontoid process of the second cervical vertebra. Ortop.,travm.i protez. 20 no.12:52-53 D '59. (MIRA 13:5)

1. Iz kafedry khirurgii dlya usovershenstvovaniya vrachey No.2 (nach. - prof. I.D. Zhitnyuk) Voyenno-meditsinskoy akademii imeni S.M. Kirova.

(ATLAS AND AXIS fracture & dislocation)

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USSR/Medicine - Tissue Therapy Nov 51

"Application in Some Diseases of Preserved Tissue Implantations According to Filatov," M. A. Popov, Clinic of Faculty Surg, Tomsk Med Inst imeni V. M. Molotov

"Khirurgiya" No 11, pp 50-55

PA 192T75

Reviews subject briefly. States that on the basis of results obtained at his clinic, implantation of preserved skin according to V. P. Filatov is indicated in contractures (dermatogenic, desmogenic, myogenic, and to some extent neurogenic), slowly

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healing ulcers of diverse etiology in the extremities, and adhesions in the abdominal region. Cites some statistics based on results of the treatment.

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POPOV, M. A.

POPOV, M.A., nauchnyy sotrudnik

A buffer pond as a simple and effective method for the purification of petroleum products wastes. Gig. i san. 23 no.11:78-80 N '58. (MIRA 12:18)

1. Iz Omskogo nauchno-issledovatel'skogo instituta epidemiologii mikrobiologii i gigiyeny.
(IRTYSH RIVER--WATER--POLLUTION)
(PETROLEUM WASTE)

VOYTIKOV, Viktor Vladimirovich; DRONG, Ivan Iosifovich, inzh.; DZHULAY, Petr Silovich; POPOV, Mikhail Amvrosiyevich; PRITSKER, Petr Yakovlevich; RESHETNIKOV, N.S., red.; OSOKINA, A.M., red.izd-va; BACHURINA, A.M., tekhn.red.

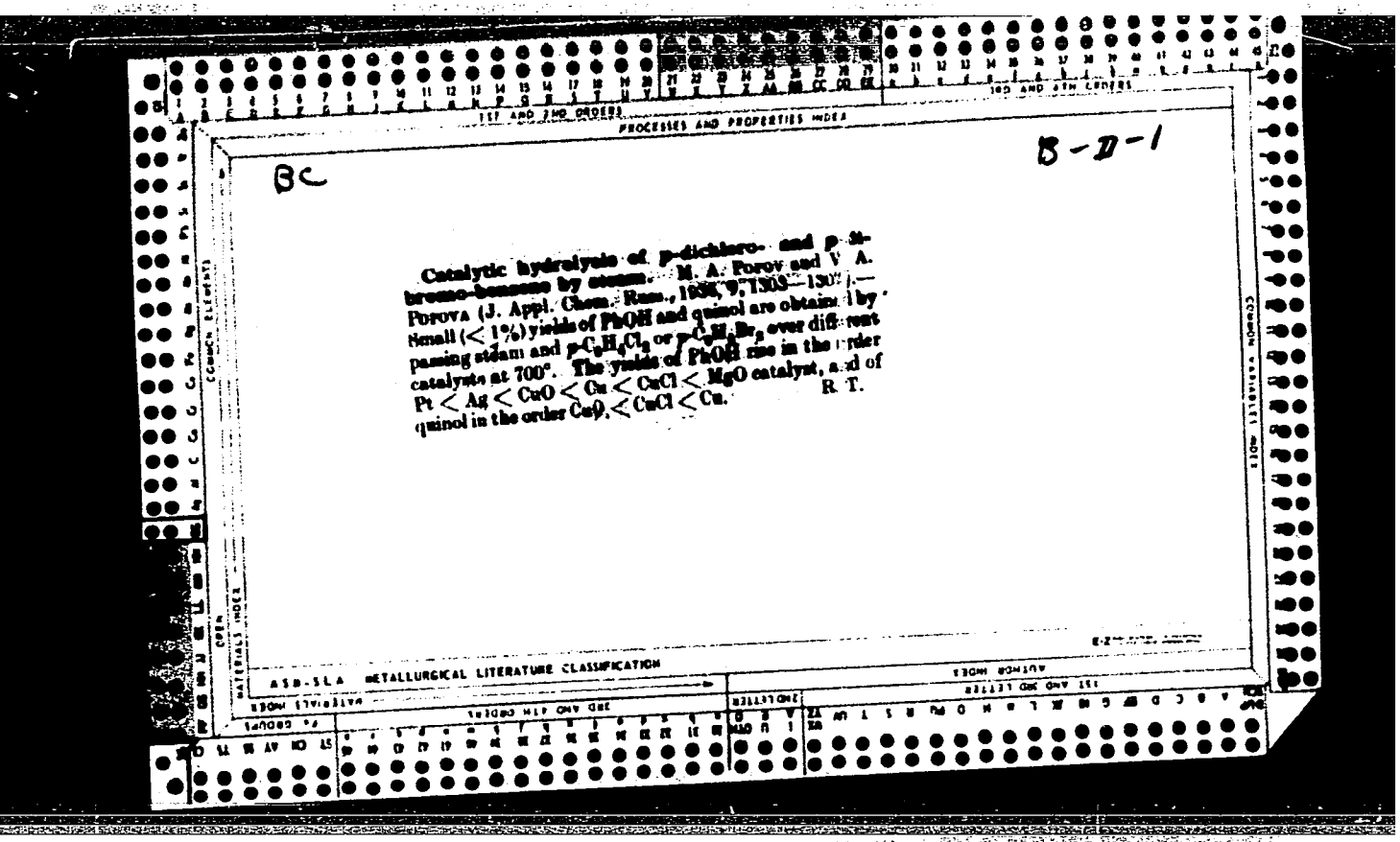
[The TDT-60 trailer tractor] Trelevochnyi traktor TDT-60. Pod red. I.I.Dronga. Moskva, Goslesbumizdat, 1958. 265 p. (MIRA 12:8)

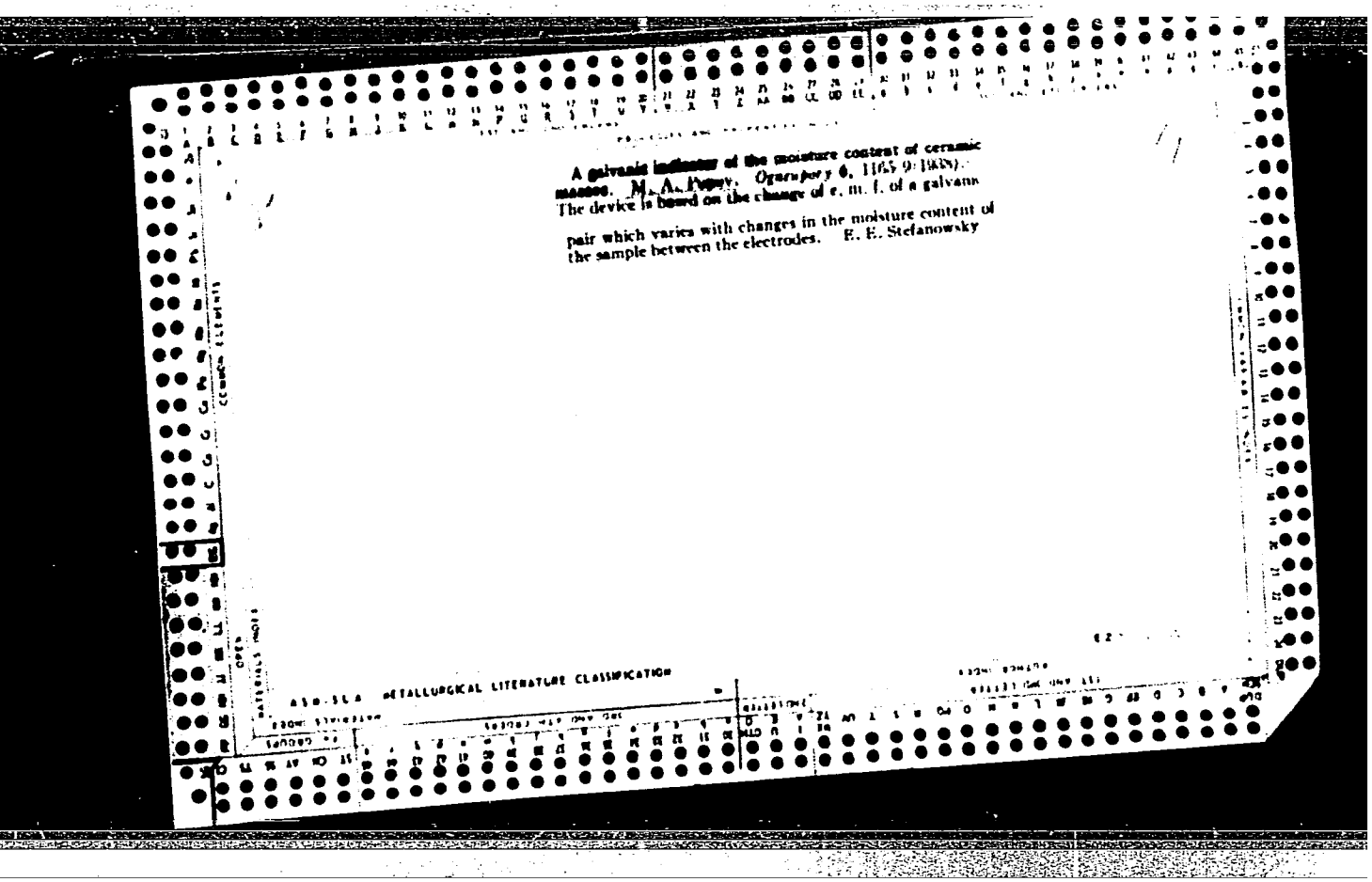
(Tractors)

POPOV, M.A.; SHUYKIN, N.I.

Catalytic reduction amination of butanal. Izv.AN SSSR.Otd.khim.-nauk no.6:1082-1086 '62. (MIRA 15:8)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Butyraldehyde) (Reduction, Chemical)
(Amination)





A galvanic indicator of the moisture content of ceramic masses. M. A. Popov. *Ogneupory* 6, 1165 9: 1838).
The device is based on the change of e. m. f. of a galvanic pair which varies with changes in the moisture content of the sample between the electrodes. E. E. Stefanowsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION