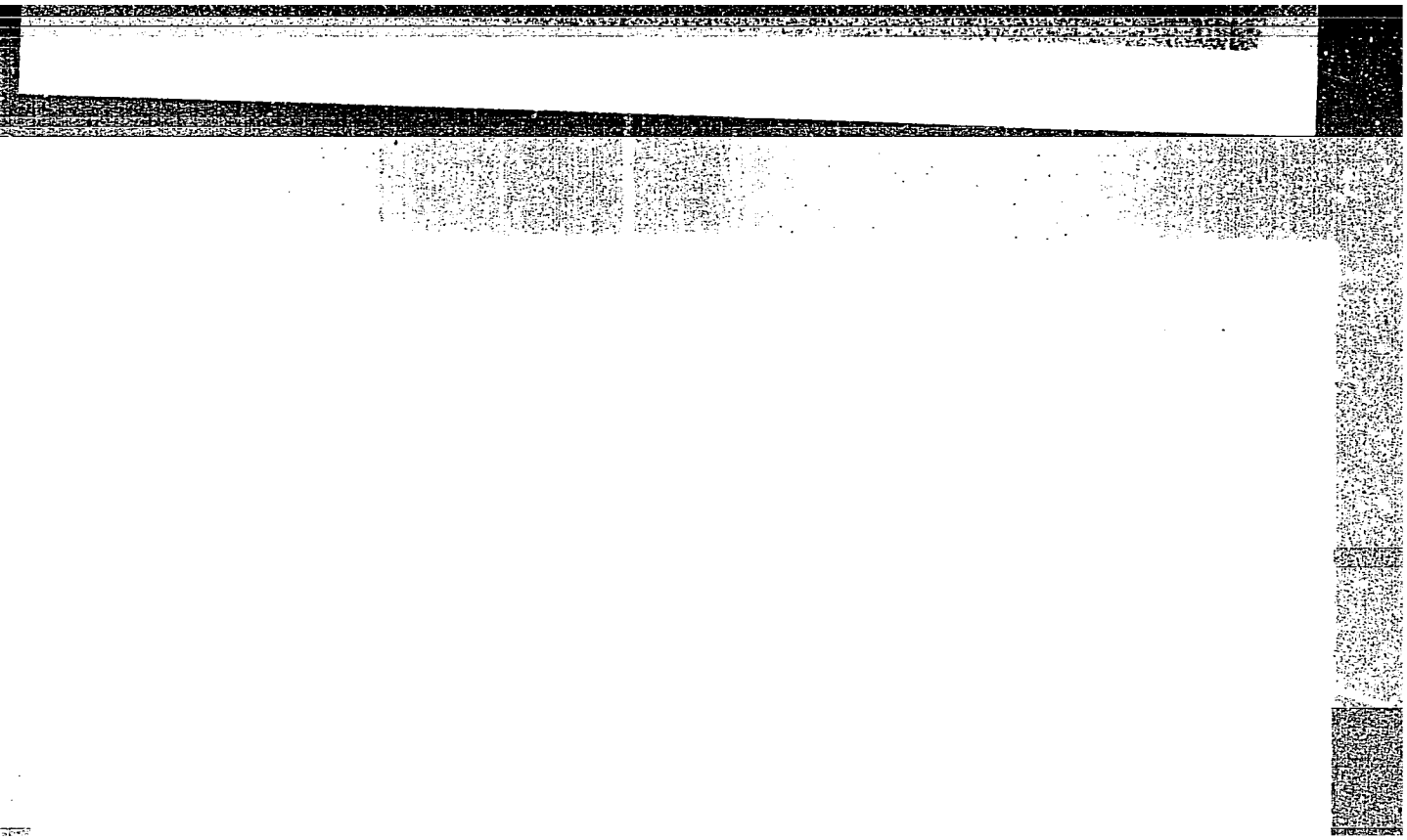
D'YACHENKO, P.Ye., doktor tekhnicheskikh nauk, professor; TOLKACHEVA, N.N., kandidat tekhnicheskikh nauk.

Radioisotopic determination of wall thicknesses. Vest.mash.35 no.9: 12-15 S '55. (MLRA 9:1)
(Measuring instruments) (Radioisotopes--Industrial applications)



APPROVED FOR RELEASE: 08/22/2000 CIA-RDP86-00513R000411710009-8"

D'YACHENKO, P.Ye., professor, doktor tekhnicheskikh nauk.

Project of international standards for the evaluation of surface roughness. Standartizatsiia no.6:74-77 N-D '56. (MLRA 10:1)
(Surfaces (Technology)--Standards)

SOV/137-57-6-11154

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 252 (USSR)

AUTHORS: D'yachenko, P.Ye., Slinko, B.L., Yemelin, A.A.

TITLE: Utilization of Radioactive Isotopes in Evaluating the Wear of Machine Parts (Primeneniye radioaktivnykh izotopov dlya otsenki iznosa detaley mashin)

PERIODICAL: V sb.: Povysheniye dolgovechnosti mashin, Moscow, Mashgiz, 1956, pp 177-193

ABSTRACT: The advantages of the radioactive-tracer (RT) method over other methods for the evaluation of the wear (W) of machine parts is noted, the main advantage being the feasibility of measuring W without dismantling a machine. The measurement of the magnitude of W is done by measuring the radioactivity of the oil by means of; a) placing the counter directly in the stream of oil in the oil conduit, b) placing the counter outside the oil conduit, and c) regular sampling of the oil from the oil conduit. The organization of the investigations and monitoring for qualitative and quantitative evaluation of the magnitude of W is described. The methods for the introduction of RI into the rubbing parts are examined, the technique for the application of

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electrolytic coatings of Cr, Ag, In, and Zn onto the rubbing surfaces and the method for radioactive insertions which serve as tracers for the W are adduced. Experimental data are given on the monitoring of the W of a graphite layer on an Al piston using the RT Zn^{65} and also the dependence of the W of bimetallic bearings (steel - Ag) and of bearings with a Pb-In coating on the magnitude of the load and the number of revolutions of the rod. It is established that bearings with a Pb-In coating wear in more quickly than bimetallic bearings. The authors note the great difficulties in the employment of the RT method for the quantitative evaluation of W.

L.P.

D'YACHENKO, P. YE.

ALFEROV, A.A.; ARTEMKIN, A.A.; ASHKENAZI, Ye.A.; VINOGRADOV, G.P.; GALEYEV, A.U.; GRIGOR'YEV, A.N.; D'YACHENKO, P.Ye.; ZALIT, N.N.; ZAKHAROV, P.M.; ZOBNIN, N.P.; IVANOV, I.I.; IL'IN, I.P.; KMETIK, P.I.; KUDRYASHOV, A.T.; LAPSHIN, F.A.; MOLYARCHUK, V.S.; PERTSOVSKIY, L.M.; POGODIN, A.M.; RUDOY, M.L.; SAVIN, K.D.; SIMONOV, K.S.; SITKOVSKIY, I.P.; SITNIK, M.D.; TETEREV, B.K.; TSETYRKIN, I.Ye.; TSUKANOV, P.P.; SHADIKYAN, V.S.; ADELUNG, N.N., retsenzent; AFANAS'YEV, Ye.V, retsenzent; VLASOV, V.I., retsenzent; VOROB'YEV, I.Ye., retsenzent; VORONOV, N.M., retsenzent; GRITCHENKO, V.A., retsenzent; ZHEREBIN, M.N., retsenzent; IVLIYEV, I.V., retsenzent; KAPORTSEV, N.V., retsenzent; KOCHUROV, P.M., retsenzent; KRIVORUCHKO, N.Z., retsenzent; KUCHKO, A.P., retsenzent; LOBANOV, V.V., retsenzent; MOROZOV, A.S., retsenzent; ORLOV, S.P., retsenzent; PAVLUSHKOV, E.D., retsenzent; POPOV, A.N., retsenzent; PROKOF'YEV, P.F., retsenzent; RAKOV, V.A., retsenzent; SINEGUBOV, N.I., retsenzent; TERENIN, D.F., retsenzent; TIKHOMIROV, I.G., retsenzent; URBAN, I.V., retsenzent; FIALKOVSKIY, I.A., retsenzent; CHEPYZHEV, B.F., retsenzent; SHEBYAKIN, O.S., retsenzent, SHCHERBAKOV, P.D., retsenzent; GARNYK, V.A., redaktor; LOMAGIN, N.A, redaktor; MORDVINKIN, N.A., redaktor; NAUMOV, A.N., redaktor; POBEDIN, V.F., redaktor; RYAZANTSEV, B.S., redaktor; TVERSKOY, K.N., redaktor; CHEREVATYY, N.S., redaktor; ARSHINOV, I.M., redaktor; BABELYAN, V.B., redaktor; BERNGARD, K.A., redaktor; VERSHINSKIY, S.V., redaktor; GAMBURG, Ye.Yu., redaktor; DERIBAS, A.T., redaktor; DOMBROVSKIY, K.I., redaktor; KORNEYEV, A.I., redaktor; MIKHEYEV, A.P., redaktor

(Continued on next card)

ALFEROV, A.A. ---- (continued) Card 2.
MOSKVIN, G.N., redaktor; RUBINSHTEYN, S.A., redaktor; TSYPIN, G.S., redaktor; CHERNYAVSKIY, V.Ya., redaktor; CHERNYSHEV, V.I., redaktor; CHERNYSHEV, M.A., redaktor; SHADUR, L.A., redaktor; SHISHKIN, K.A., redaktor

[Railroad handbook] Spravochnaia knizhka zheleznodorozhnika, Izd. 3-e, ispr. i dop. Pod obshchei red. V.A.Garnyka. Moskva, Gos. transp.zhel-dor. izd-vo, 1956. 1103 p. (MLRA 9:10)

1. Nauchno-tekhnicheskoye obshchestvo zheleznodorozhnogo transporta. (Railroads)

D'YACHENKO, P.Ye., prof.

Preface. Trudy Sem. po kach. poverkh. no.3:3-4 '57. (MLRA 10:11)
(Surfaces (Technology))

D'YACHENKO, P. Ye.

"Industrial Hygiene Problems in Work With Radioactive Isotopes," by S. M. Gorodinskiy and G. M. Parkhomenko, Institute of Industrial Hygiene and Occupational Diseases, Academy of Medical Sciences USSR, Izucheniye Iznosa Detaley Mashin pri Pomosch' Radioaktivnykh Izotopov (Study of Wear of Machine Parts by Means of Radioactive Isotopes), edited by P. Ye. D'yachenko, Moscow, Publishing House of the Academy of Sciences USSR, 1957, pp 135-143

Gives sanitary requirements for the construction, equipment and furnishings of buildings where work with radioisotopes will be carried on. Gives maximum permissible levels of radiation, methods of safely handling radioactive material, and protective measures and rules for personal propylaxis in work with radioactive material. (U)

Sum. No. 1451

D'YACHENKO, P.Ye., professor, otvetstvennyy redaktor; MITIN, V.I., redaktor izdatel'stva; POLYAKOVA, T.V., tekhnicheskiy redaktor

[Studying the wear of machine parts by means of radioactive isotopes] Izuchenie iznosa detalei mashin pri pomoshchi radioaktivnykh izotopov. Moskva, 1957. 143 p. (MLRA 10:2)

1. Akademiya nauk SSSR. Komissiya po tekhnologii mashinostroyeniya. (Radioactive tracers) (Mechanical wear)

SOV/137-57-10-20496

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 301 (USSR)

AUTHORS: Nisnevich, A. I., D'yachenko, P. Ye.

TITLE: Investigation of the Wear of Metals Utilizing Automatic Recording (Issledovaniye iznosa metallov s primeneniyem avtomaticheskoy zapisi)

PERIODICAL: Izuch. iznosa detaley mashin pri pomoshchi radioaktivn. izotopov. Moscow, AN SSSR, 1957, pp 15-25

ABSTRACT: A description of the tagged-atoms method for the evaluation of wear (W) utilizing automatic recording, as developed by NATI (Automobile and Tractor Scientific Research Institute) in collaboration with IMASh AN SSSR (Institute of Machine Construction, Academy of Sciences, USSR). The effect of the microgeometry of the surface of a piston pin of the D-54 type engine on the wear of both the ring itself and the bushing of the piston-pin head of the connecting rod was investigated. The tests were conducted on a specially equipped type MI friction machine under various conditions of lubrication and a load of 100 kg. The measurement of the activity of the oil (O) was performed by means of drawing test

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samples or by means of placing a counter in the continuous stream of O (with abundant lubrication). The specimens tested had a surface finish of the sixth and tenth class. Rollers 32 mm in diam and 10 mm in width were prepared of carburized 20Kh-grade steel with a hardness of 54 - 56 H_{Rc}. In the course of the tests the W of a machine part prepared from OTsS-5-5-5 grade bronze coupled to a roller was evaluated. The activation of the machine part was accomplished by introducing the Sb^{124} isotope into the melt. The activity of the discharged O was determined, taking into account the correction for background radiation and the radioactive decay of Sb^{124} during the test. The number of radioactive atoms per unit of time was calculated according to the exponential law of decay. The specimens tested were placed into the oil sump, the circulation of the lubricant was accomplished by a gear-type oil pump which ensured ten exchanges of oil in the chamber during each count period (3 min). It is established that with the growth of the initial microgeometry of the surface of the piston pin (or of the roller) the W of the piston-pin head of the connecting rod also increases. Relationships between the working-in lengths of time of the individual pairs investigated were obtained experimentally. A description is given of the apparatus for the investigation of the effect of the variation in the magnitude of the load on the intensity of W and on the moment of friction, and the fundamental results are cited.

Investigation of the Wear of Metals Utilizing Automatic Recording SOV/137-57-10-20496

For the purpose of monitoring the variations in the amount of the product of W in the lubricant an instrument was developed which records automatically the total number of impulses received from the counting apparatus during a specified period of time. The instrument is connected to the output terminals of the radiographic apparatus in parallel with the mechanical counter and carries on its recording independently of the latter. The instrument can record up to 25,600 impulses during a single counting period and can carry out an uninterrupted recording during more than 200 hours of testing. With an increase in the number of impulses recorded by the instrument the absolute error of the measurement also increases; however, the magnitude of the relative error is $\leq 2.5\%$. A comparison of the results of the laboratory investigations by the tagged-atom method with the results of previously conducted shop tests showed that they were completely identical.

L. G.

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SOV/137-57-11-22409

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 11, p 254 (USSR)

AUTHORS: D'yachenko, P.Ye., Nisnevich, A.I., Vaynshteyn, V.E.

TITLE: A Study of Wear in Tractor Antifriction Materials in the Presence of Dust in the Lubricant (Izucheniye iznosa antifriktsionnykh traktornykh materialov pri nalichii pyli v smazke)

PERIODICAL: V sb.: Izuch. iznosa detaley mashin pri pomoshchi radioaktivn. izotopov. Moscow, AN SSSR, 1957, pp 26-38

ABSTRACT: An investigation is made of the effect of the quantity and the fractional composition of dust (D) upon the rate of wear upon parts (32-mm rollers) made of OTsS5-5-5 and OTsS5-5-10 bronzes activated by radioactive isotope in the melt. Direct determination of extent of wear is made on the MI friction machine. The amount of wear of the second specimen in contact therewith (a roller of Nr 20Kh carburized steel) is estimated by weighing it before the start and at the end of the test. Natural D (γ = 2.35) introduced into transformer oil in quantity of 0.05 to 0.75% is used in the tests. In all of the experiments the loading on the samples was 25 kg/cm^2. It is established that the presence of D in the lubricant increases the rate of

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A Study of Wear in Tractor Antifriction Materials (cont.)

wear both of steel and of bronze, particularly in the presence of 0.1-0.15% D and more. If the lubricant contains 0.15-0.5% D, the maximum influence upon the rate of wear is that presented by the fine D fractions. During the process of wear, bronze is transferred to the steel surface, and this may distort the results of the evaluation of its resistance to wear. It is observed that the data obtained are of major significance for a correct analysis of the effectiveness of air cleaners and that in order to attain a significant drop in the wear rate of such couplings in tractor engines as between the connecting-rod small-end bushing and the piston pin (OTsS5-5-5 bronze and Nr 20Kh steel) and between the crankshaft and its bearings (Br S30 bronze and Nr 45 steel) it is necessary to strive for a reduction in entry of fine D fractions.

A.M.

SOV/137-57-10-20495

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 301 (USSR)

AUTHORS: D'yachenko, P. Ye., Tolkacheva, N. N., Goryunov, K. N.

TITLE: Determination of the Area of Actual Contact Between Surfaces (Opredeleniye ploshchadi fakticheskogo kontakta poverkhnostey)

PERIODICAL: V sb.: Izuch. iznosa detaley mashin pri pomoshchi radioaktivn. izotopov. Moscow, AN SSSR, 1957, pp 111-123

ABSTRACT: A description of the employment of a radioactive-isotope method for the determination of the area of actual contact between two rough metallic surfaces (S). One of the contact S was activated by the application of a thin coating of a solution of Na sulfate (S^{35}) or of Zn chloride containing Zn^{65}, and by means of electrolysis. The S of the specimens were pressed together on a special device under a load of 0.5 - 25 kg for 30 sec; during this time metal particles were transferred from the activated S onto the nonactivated one. The presence of the isotope on the nonactivated S was established by a counter and its distribution on the S was determined by means of autoradiography by a method developed at the LAFOKI (Laboratory of Scientific and Applied Photography and

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Determination of the Area of Actual Contact Between Surfaces

Cinematography, Academy of Sciences, USSR). The actual area of contact was determined according to the autoradiograph by means of calibration by the optical-mechanical method. For this purpose the deformation (D) of the metal which resulted from pressing together of the two specimens was separated into its elastic and plastic portions. The separation of the D was accomplished on a Levin IZP-5 type profilograph equipped with a special loading device. In plotting the D-load curves, a recording was made with 9800x magnification. 25x45x8 mm plates of untempered 15 and 45-grade steels with the roughness of the S of the first and fourth class of finish and an H_B of 127 - 174 were used as lower specimens in the experiments. The upper specimens were prepared in the form of cylinders with a base area of 1 cm^2 and a height of 15 mm. The end surfaces of the upper specimens were polished to the 12th class of smoothness of finish and had an H_B of 205. The longitudinal roughness was impressed on celluloid molds from the surface of the metal. The variation in the area of the bearing S in relation to the distance up to the line of the depressions in the microprofile was calculated on the basis of the curves of the bearing S for both the lateral and the longitudinal roughness (of the profile graphs). A description is given for the calculation of the plastic and the elastic D according to the recorded graphs. It is established that for a specimen of steel of a given grade an increase in the

class of smoothness of finish causes a considerable decrease in the plastic D, while the variation in the total D is insignificant. An increase in the H_B of steel results in a decrease of the magnitude of the total and the plastic D. It is shown that upon loading D occurs not only in the peaks of the protuberances of the lower plate but also in the contact S of the upper specimen which possesses a higher H_B.

L. G.

122-1-23/34

AUTHOR: D'yachenko, P.E., Doctor of Technical Sciences, Professor.

TITLE: On an international standard for the evaluation of surface roughness (O mezhdunarodnom standarte dlya otsenki shero-khovatosti poverkhnosti)

PERIODICAL: "Vestnik Mashinostroyeniya" (Engineering Journal), 1957, No.1, pp. 78 - 81 (U.S.S.R.)

ABSTRACT: Report on the second International Conference on surface finish held in August, 1956, in Leningrad. The different systems of specifying surface roughness are explained. The enveloping line system, the mean line system and the difference system were considered. The mean line system permits the easiest quantitative measurement of roughness, occasional sharp deviations have no undue weight and the system is already approved as a national standard by many countries. This system was therefore approved as an international standard. A set of definitions was agreed and a standard length of the base line adopted. Numerical tables are included classifying roughness values by the two criteria of average and maximum deviations.

Card 1/1 There are 4 figures, including 1 graph and 2 tables.

AVAILABLE: Library of Congress

D'YACHENKO, P.Ye.

Superfinishing by abrasive bricks. Trudy Sem. po kach. poverkh. no.3: 145-152 '57. (MLRA 10:11)
(Grinding and polishing) (Abrasives)

LOZINSKIY, Mikhail Grigor'yevich; D'YACHENKO, P.Ye., otv.red.; RZHEZNIKOV, V.S., red.izd-va; PRUSAKOVA, T.A., tekhn.red.

[Industrial application of induction heating] Promyshlennoe primenenie induktsionnogo nagreva. Moskva, Izd-vo Akad. nauk SSSR, 1958. 470 p. (MIRA 12:1)
(Induction heating)

21(4) PHASE I BOOK EXPLOITATION SOV/1816

D'yachenko, Petr Yefimovich, Doctor of Technical Sciences, Professor

Primeneniye radioaktivnykh izotopov v tekhnike (Use of Radioactive Isotopes in Engineering) Moscow, Mashgiz, 1958. 214 p. 10,000 copies printed.

Reviewer: M.Ye. Drits, Candidate of Technical Sciences; Ed.: A.Ya. Shinyayev, Candidate of Physical and Mathematical Sciences; Ed. of Publishing House: A.F. Balandin; Tech. Ed.: T.F. Sokolova; Managing Ed. for Literature on Metal Working and Tool Making: R.D. Beyzel'man, Engineer.

PURPOSE: This book is intended for the engineering and technical personnel at plants and institutes.

COVERAGE: The text discusses various uses of radioactive isotopes in engineering laboratory research and in industrial plant processes. Much attention is paid to the problem of the wear of machine parts and the mechanism of wear as studied by means of radioactive

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isotopes. A description is given of the methods and equipment for the measurement of the thickness of products, for the defectoscopy of metals, and for a variety of technical applications. The author also discusses the effect of radioactive radiation on the properties of metals. Three trends appear in the use of radioactive isotopes: 1) utilizing the different abilities of materials to absorb radioactive radiation; 2) using the radiation of radioactive particles which are being transferred from one section to another in the course of the process; 3) using radioactive irradiation in order to change the properties of materials. The text includes a description of a series of works performed at the Institut mashinovedeniya (Institute of Machine Construction), AS USSR, under the direction of the author. His coworkers were N.N. Tolkacheva, V.E. Vaynshteyn, K.N. Goryunov, and D.N. Klimkin. Other research institutes participated, in the persons of B.L. Slinko, A.A. Yemelin, A.I. Nisnevich, P.F. Grigor'yev, V.K. Sosnin, and V.K. Razuvayemyy. There are 90 references of which 68 are Soviet, 19 English, and 1 German.

TABLE OF CONTENTS:

Dyachenko, P. Ye.

5(2);25(1) PHASE I BOOK EXPLOITATION SOV/2313

Akademiya nauk SSSR. Institut mashinovedeniya

Povysheniye stoykosti detaley mashin /sul'fidirovaniye/; sbornik statey (Increasing the Wear Resistance of Machine Parts /Sulfurization/; Collection of Articles) Moscow, Mashgiz, 1959. 126 p. Errata slip inserted. 4,500 copies printed.

Ed. (Title page): M. M. Khrushchov, Doctor of Technical Sciences; Ed. (Inside book): A.G. Nikitin, Engineer; Tech. Ed.: V.D. El'kind; Managing Ed. for Literature on General Technical and Transport Machine Building (Mashgiz): K.A. Ponomareva, Engineer.

PURPOSE: This collection of articles is intended for engineering and technical workers of machine-building and overhauling plants.

COVERAGE: This book presents results of investigations of methods to increase the resistance of machine parts to seizure. A new method of sulfurization which improves the friction behavior of cast iron and steel and an analysis of the effect of sulfurization on the antifriction properties and wear of metal are given.

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P.E. [illegible], T. YE.

P. 2, 3

PHASE I BOOK EXPLOITATION SOV/3688

Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya. Seminar po kachestvu poverkhnosti

Kachestvo poverkhnosti detaley mashin, sbornik 4. Tekhnologicheskiye faktory obrabotki. Metrologiya i pribory. Ekspluatatsionnyye svoystva poverkhostnogo sloya (Surface Quality of Machine Parts, Collection of Articles, No. 4. Processing Factors in Machining. Metrology and Instruments. Operational Properties of the Surface Layer) Moscow, Izd-vo AN SSSR, 1959. 291 p. (Series: Its: Trudy) Errata slip inserted. 3,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.

Resp. Ed.: P.Ye. D'yachenko, Professor; Ed. of Publishing House: G.B. Gorshkov; Tech. Ed.: T.P. Polenova.

PURPOSE: This collection of articles is intended for technical personnel concerned with the quality of surface finishes of machine parts.

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PHASE I BOOK EXPLOITATION SOV/3528

Moscow. Dom nauchno-tekhnicheskoy propagandy

Primeneniye ul'trazvuka v proayshlennosti; sbornik statey (Industrial Use of Ultrasound; Collection of Articles) Moscow, Mashgiz, 1959. 301 p. 8,000 copies printed.

Sponsoring Agency: Obshchestvo po rasprostraneniyu politicheskikh i nauchnykh znaniy RSFSR.

Ed. (Title page): V.F. Kozlov, Doctor of Physical and Mathematical Sciences, Professor; Ed. (Inside book): O.F. Kochetova, Engineer; Tech. Ed.: V.D. Kiknadi; Managing Ed. for Literature on Machinery and Instrument Manufacturing (Mashgiz): M.V. Pokrovskiy, Engineer.

PURPOSE: This book is intended for engineers and technicians engaged in the application of ultrasonics in machinery manufacture and in other branches of industry.

COVERAGE: This is a collection of papers read at the first all-Union conference on the use of ultrasonics in industry. Attention is focused mainly on the description of ultrasonic equipment and on the use of ultrasound for the machining of hard materials and for flaw detection. The effect of ultrasound on metal-crystallization processes is also discussed. No personalities are mentioned. References accompany many of the papers.

D'yachenko, P. Ye., Tolkacheva, N. N., and Karpova, T. M.

"Determination of the Actual Area of Contact of Contacting Surfaces"

Sukhoye i granichnoye treniye. Friktsionnyye materialy (Dry and Boundary Friction. Friction Materials) Moscow, Izd-vo AN SSSR, 1960. 302 p. Errata slip inserted. 3,500 copies printed. (Series: Its: Trudy, v. 2)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.
Resp. Ed.: I. V. Kragel'skiy, Doctor of Technical Sciences, Professor; Ed. of Publishing House: K. I. Grigorash; Tech. Ed.: S. G. Tikhomirova.

The collection published by the Institut mashinovedeniya, AN SSSR (Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the III Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines, April 9-15, 1958.

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25244

S/122/60/000/003/010/015
A161/A130

AUTHORS: D'yachenko, P.Ye., Professor, Doctor of Technical Sciences, and Mizrokhi, Yu.N., Engineer

TITLE: Cutting diamonds with ultrasound and rotating disc

PERIODICAL: Vestnik mashinostroyeniya, no. 3, 1960, 60 - 61

TEXT: The experiment unit described and illustrated in a schematic diagram works by combined action of ultrasound and a fast rotating disc. The ultrasound head with a diamond dust container (2) is fixed on a table (1). The head casing (3) on a roller base (4) is moved horizontally by a weight (5). The head includes a horizontal 40 x 40 mm cross-section vibrator (6) of 120 mm length, a concentrator (7), and an arbor (8) 8 mm in diameter and 10 mm in length. The diamond (9) is soldered into the arbor. The vibrator is held by a knife clamp (10). The container (2) is attached with two bolts to a flange on the concentrator. The disc (11) from stainless steel, 0.2 mm thick and 40 mm in diameter, is on a vertical spindle (12). A diamond 3.8 mm wide and 3 mm thick was cut through in 30 min with 500 g pressure and 800 rpm of the disc, and 35 micron double vibration amplitude. Another diamond of the same width was cut 1.5 mm deep in 10 min with a 50

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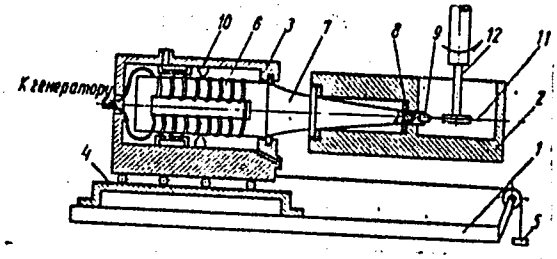
Cutting diamonds with ultrasound and rotating disc 25244 S/122/60/000/003/010/015 A161/A130

micron amplitude. This means that the new method takes 5-7 min for cutting through 1 mm diamond, comparing to 25-30 min usual. It was stated in experiments that the vibrating element always wears faster than stationary, and this was the reason why diamond was soldered to the arbor. The Institut mashinovedeniya AN SSSR (Institute of Science of Machines AS USSR) has produced such a unit at an industry plant. It is used for regular production. There is 1 figures.

Fig.



Card 2/2

D'YACHENKO, P.Ye. (Moskva); MIZROKHI, Yu.N. (Moskva)

Ultrasonic cutting of diamonds. Izv.AN SSSR.Otd.tekh.nauk. Mekh.i mashinostr. no.3:167-168 My-Je '60.
(MIRA 13:6)
(Diamond cutting industry)
(Ultrasonic waves--Industrial applications)

S/030/60/000/06/39/043
B004/B008

AUTHOR: D'yachenko, P. Ye., Doctor of Technical Sciences

TITLE: Problems of Surface Quality in Machine Construction

PERIODICAL: Vestnik Akademii nauk SSSR, 1960, No. 6, pp. 141-143

TEXT: The vsesoyuznoye soveshchaniye po kachestvu poverkhnosti v mashinostroyenii (All-Union Conference on Surface Quality in Machine Construction) was convened by the Komissiya po tekhnologii mashinostroyeniya (Commission on Technology of Machine Construction) of the Institut mashinovedeniya Akademii nauk SSSR (Institute of Mechanical Engineering of the Academy of Sciences, USSR), the Gosudarstvennyy komitet po avtomatizatsii i mashinostroyeniyu (State Committee on Automation and Machine Construction), and the Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR (State Scientific and Technical Committee of the Council of Ministers of the USSR), and was held from March 30 to April 2. 59 lectures were delivered. Considerable progress was achieved during the 6 years since the last Congress. The new standard ГОСТ 2789-59 (GOST 2789-59) for measuring the purity of surface was intro-

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duced, and new international standards are being elaborated by the Institute of Mechanical Engineering. The majority of lectures dealt with the surface treatment of machine parts (B. M. Rovinskiy, S. B. Aybinder), the determination of the actual contact face between 2 surfaces at various loads (I. V. Kragel'skiy, N. B. Demkin, G. A. Andreyev), and new methods of measuring roughness. The profilograph of the zavod "Kalibr" ("Kalibr" Works) which draws a graph of the profile 200000 times enlarged in vertical direction, is mentioned. G. B. Lur'ye proposed new criteria for the stability of grinding wheels. N. I. Gorayetskiy analyzed methods of superfinishing and honing. A. A. Matalin investigated the scientific basis for the selection of most suitable surface treatments. Ye. N. Maslov reported on the surfaces of cermets which were ground, polished or treated by ultrasonics. The problem of consolidation of the surface layer by means of irradiation by elementary particles, thermodiffusion, and cold hardening was dealt with next (P. Ye. D'yachenko, P. K. Oshchepkov, N. N. Tolkacheva, G. A. Andreyev, V. A. Chudov, K. N. Goryunov, L. N. Dubova, I. V. Kudryavtsev, I. S. Shteynberg). Yu. S. Terminasov and A. Alybakov reported on X-ray investigations of the surface layer. I. A. Oding, S. Ye. Gurevich,

Card 2/3

Problems of Surface Quality in Machine Construction

S/030/60/000/06/39/043
B004/B008

N. P. Zobnin, D. L. Yudin, G. Z. Zaytsev, G. K. Markaryan, and N. M. Derbasov reported on experiments for the increase of strength and fatigue limit. A. I. Natchuk reported on the acceleration of thermodiffusion by means of borating under heating with high-frequency current and application of ultrasonics. The resolutions passed dealt with the development of new testing and optical measuring instruments for determining roughness and residual stresses of the surface.

Card 3/3

D'YACHENKO, P.Ye; VAYNSHTEYN, V.E.

Some aspects of the standard for surface roughness. Standartizatsiia 24 no.4:25-28 Ap '60. (MIRA 13:9)
(Surfaces (Technology)--Standards)

CHESTNOV, Aleksandr Leonidovich, kand. tekhn. nauk, starshiy nauchn. sotr. [deceased]; D'YACHENKO, P.Ye., doktor tekhn.nauk, prof., otv. red.; SOKOLOVA-CHESTNOVA, V.A., red. izd-va; YEPIFANOVA, L.I., tekhn. red.

[Problems of metal finishing] Voprosy otdelochnoi obrabotki metallov. Moskva, Izd-vo Akad. nauk SSSR, 1961. 110 p. (MIRA 14:7)

1. Zamestitel' zaveduyushchego laboratoriyey uprochneniya i otdelochnykh operatsiy Instituta mashinovedeniya AN SSSR (for Chestnov)
(Metals--Finishing)

S/514/62/000/005/001/014
I007/I207

AUTHORS: D'yachenko,P.Ye., Oshchepkov,P.K., Tolkacheva,N.N., Andreyev,G.A., Chudov,V.A., Goryunov,A.N., and Dubova,L.N.

TITLE: On the hardening of metal surface layers by irradiation

SOURCE: Akademiya nauk SSSR. Komissiya po tekhnologii mashinostroyeniya. Seminar po kachestvu poverkhnosti. Trudy. no. 5,1961. Kachestvo poverkhnosti detaley mashin; metody i pribory, uprochneniye metallov, tekhnologiya mashinostroyeniya, 27-31

TEXT: The thermal effect of nuclear irradiation in the surface layers of metals was investigated after electronic, ionic and deuteron irradiation. The equipment consisted of a voltage-pulse generator, electron gun and a vacuum unit. Considerable increase in the wear resistance of metals resulted from the levelling of micro-irregularities, fusion of micro-cracks and the sudden quenching of the surface layer. In a second test, ionic irradiation was achieved in a unit for the electromagnetic separation of isotopes by irradiation with titanium ions. The titanium diffused into the surface of the specimens to a depth of 110 microns and wear resistance

Card 1/2

S/514/61/000/005/001/014
I001/I207

On the hardening of metal...

increased by as much as 10 times compared to the initial resistance. Microhardness increased by as much as 1.5 times. Deuteron irradiation was performed in a cyclotron and resulted in an increase of microhardness by a factor of 2-3, and of wear resistance by a factor of 2-2.5. There are 4 figures.

Card 2/2

D'YACHENKO, P.Ye.; VAYNSHTEYN, V.E.; GROZINSKAYA, Z.P.; D'YAKOVA, A.G.

Some problems in measuring the waviness of internal ring tracks of ball bearings. Trudy Sem.po kach.poverkh. no.5:210-218 '61. (MIRA 15:10)

(Ball bearings—Testing)

D'YACHENKO, Petr Yefimovich; VAYNSHTEYN, Vera Edmundovna; GROZINSKAYA, Zoya Petrovna; BAL'YAN, L.G., red. izd-va; RASHEVSKAYA, Ye.Z., tekhn. red.

[Methods for checking and standardizing the undulations of surfaces]Metody kontrolia i standartizatsiia volnistosti poverkhnosti. Moskva, Standartgiz, 1962. 94 p. (MIRA 15:9)
(Surfaces (Technology))—Testing)

BILIK, Shaya Mendelevich, doktor tekhn. nauk; D'YACHENKO, P.Ye., doktor tekhn. nauk, prof., retsenzent; VAYNSHTEYN, V.E., kand. tekhn.nauk, red.; MERENSKAYA, I.Ya., red. izd-va; SMIRNOVA, G.V., tekhn. red.; GORDEYEVA, L.P., tekhn. red.

[Macroscopic geometry of machine parts]Makrogeometriia detalei mashin. Moskva, Mashgiz, 1962. 274 p. (MIRA 16:2)
(Machinery---Design and construction)
(Surfaces (Technology))

D'YACHENKO, P.Ye.; AVER'YANOVA, V.G.

Investigating the dispersing of solids under the action of ultrasonic waves. Tren.i izn.mash. no.15:85-96 '62. (MIRA 15:4)
(Dispersion) (Ultrasonic waves)

D'YACHENKO, Petr Yefimovich, doktor tekhn.nauk, prof.; TOLKACHEVA, Nina Nikolayevna; ANDREYEV, Gavriil Alekseyevich; KARPOVA, Tamara Mikhaylovna; BANKVITSER, A.L., red.izd-va; GOLUB', S.P., tekhn. red.

[Area of actual contact of mating surfaces] Ploshchad' fakticheskogo kontakta sopriazhennykh poverkhnostei. Moskva, Izd-vo Akad. nauk SSSR, 1963. 94 p. (MIRA 16:6)
(Surfaces (Technology))

D'YACHENKO, P.Ye., doktor tekhn. nauk, prof.

[Processes of the strengthening of machine parts; reports] Protsessy uprochneniia detalei mashin; doklady. Moskva, Izd-vo "Nauka," 1964. 207 p. (MIRA 17:7)

1. Soveshchaniye po uprochneniyu detaley mashin, 1962.

D'YACHENKO, P.Ye., doktor tekhn. nauk, prof., otv. red.

[Hardening machine parts by peening; transactions] Uprochnenie detalei mashin mekhanicheskim naklepyvaniem; trudy. Moskva, Nauka, 1965. 222 p. (MIRA 18:7)

1. Soveshchaniye po uprochneniyu detaley mashin, 1962.

SOKOLOVA, Ye.I.[deceased]; BRAYNZAROVA, G.T.; BOCHANOVA, N.S.; ZHIKHAREVA, V.I.; ZAKUMBAYEV, A.K.; ISAYEVA, M.G.; IMAMBAYEVA, U.A.; KRIVOSHEYEV, Yu.O.; KUDAYBERGENOV, Zh.D.; RAKHMETCHIN, S.; TYUTYUKOV, F.M.; SHIM, P.S.; LAZARENKO, Ye.I.; GARANKINA, A.I.; D'YACHENKO, R.; PETUKHOV, R.M., kand. tekhn. nauk, nauchn. red.; SHUPLOVA, M.A., red.; LEVIN, M.L., red.; ROROKINA, Z.P., tekhn. red.

[Food industry of Kazakhstan] Pishchevaia promyshlennost' Kazakhstana. Alma-Ata, Izd-vo AN KazSSR, 1963. 172 p.

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut ekonomiki.

(Kazakhstan--Food industry)

D'YACHENKO, R.A.; D'YACHENKO, N.P.

Quantitative determination of manganese in biological material by means of its concentration through coprecipitation. Lab. delo no.10:593-596 '64. (MIRA 17:12)

1. Kafedra biokhimii (zaveduyushchiy - dotsent Z.Zh. Gude) i kafedra obshchey khimii (zaveduyushchiy - dotsent khim. nauk V.T. Chuyko) Ternopol'skogo meditsinskogo instituta.

D'YACHENKO, R.A. [Diachenko, R.O.]; D'YACHENKO, N.P. [Diachenko, M.P.]

Quantitative determination of zinc in biological material. Ukr. biokhim. zhur. 36 no.5:791-797 '64.

(MIRA 18:6)

1. Kafedra biokhimii i kafedra obshchey khimii Ternopol'skogo meditsinskogo instituta.

ACC NR: AP6004646 SOURCE CODE: UR/0383/65/000/005/0045/0047

AUTHOR: Fomichev, I. A.; Petrunin, G. P.; Furasov, M. D.; D'yachenko, R. I.

ORG: none

TITLE: Machine for depositing polymeric protective coatings onto steel tubes performing in aggressive media

SOURCE: Metallurgicheskaya i gornorudnaya promyshlennost', no. 5, 1965, 45-47

TOPIC TAGS: protective coating, polymer, metal tube, corrosion/MPTSh 102/42 tube coating machine

ABSTRACT: The replacement of expensive and scarce tubes of stainless steels and nonferrous and precious metals with tubes of ferrous metals having protective coatings of polymeric materials resistant to aggressive media is currently being extensively investigated. In this connection, the authors describe the newly designed MPTSh 102/42 machine for coating with polymeric materials the internal surface of seamless steel by the extrusion method (Fig. 1). The operating principle of the machine is such that the screw conveyer extrudes the paste of polymeric material into the barrel of a rotating tube, or more exactly into the annular cavity between the mandrel and the tube, thus coating the internal surface of the tube with a uniform layer of the paste. Automatic pickups trigger and halt the feeding of the paste and the removal of the coated tube and mounting of a new tube onto the conveyer table. Laboratory

 UDC: 621.774:621.793:678.5

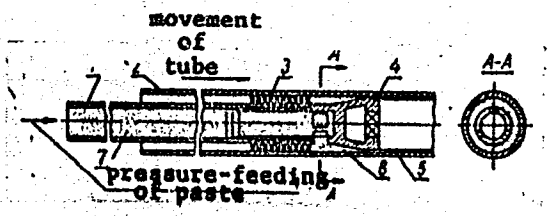

Fig. 1. Diagram of the deposition of protective coating
1 - hollow rod; 2 - tube being coated; 3 - compacting disks; 4 - mandrel;
5 - coating; 6 - cavity for paste; 7 - paste in hollow rod

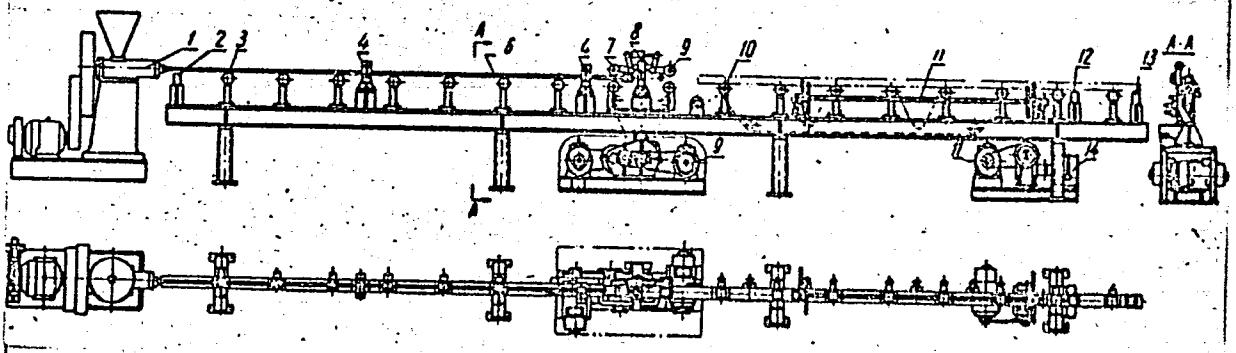

Fig. 2. General view of the MPTSh/42 machine:
1 - screw extruder; 2 - contactless pickup; 3 - guide table; 4 - collar plate; 5 - frame; 6 - hollow rod; 7 - mandrel; 8 - collar plate; 9 - tube-moving mechanism; 10 - tube-feed table; 11 - mechanism for feeding and removing of tubes; 12 - contactless pickup - 2; 13 - contactless pickup - 3; 14 - automatic controller

APPROVED FOR RELEASE: 08/22/2000 CIA-RDP86-00513R000411710009-8"

ACC NR: AP6004646

and operating trials of this machine produced positive results with respect to tubes of various diameters and of a length of up to 7 m. The machine can deposit a 1-mm thick coating on 100 tubes of 42-mm diameter per hour or on 48 tubes of 102-mm diameter per hour. The thickness of the coating can be adjusted from 0.5 to 2 mm. This method of tube-coating can be employed as a protection against corrosion and as a means of prolonging the service life of tubes, provided that the coating material is applied in the form of a paste. Currently the Dnepropetrovsk Institute of Chemical Technology, in collaboration with the Dneprodzerzhinsk Nitrogenous Fertilizers Plant, is performing operating trials of the thus coated pipe in pipelines for the transport of aggressive fluids; this should prove to be a conclusive test. Moreover, it has been established that eventually the machine can be adjusted to coat pipe segments reaching 12 m in length. Orig. art. has: 2 figures.

SUB CODE: [illegible], 11, 13/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 4/4

DYACHENKO, S

Po voprosam opranizatsii kolkhozov v SSSR (On the problems of the organization of kolkhozes in the USSR) Myunkhen, 1955.

56 p. Tables (Institut po Izucheniyu Istorii i Kul'tury SSSR. Issledovaniya i materialy seriya 2 (rotatornyye 12D) No. 28)

Bibliographical footnotes.

ABIDOV, A.A.; SINYASHIN, N.I.; D'YACHENKO, S.A.

Genetic recombination in intestinal bacteria. Report No.7.
Uzb. biol. zhur. 9 no.1:67-68 '65. (MIRA 18:6)

1. Tashkentskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.

AP5011029 3757/3762

[illegible] Dyachenko

[illegible] investigation in the field of 2,1,3-thia-and -selenadiazole. XXXIII. Di(beta-chloroethyl) amino derivatives

SOURCE: Zhurnal obshchey khimii, v. 34, no. 11, 1964, 3757-3762

TOPIC TAGS: organic azo compound, organic nitrogen compound, organic sulfur compound

[illegible] 4- and 5-Aminobenz-2,1,3-thiadiazoles were found to react with [illegible] forming 4- and 5-beta-[illegible]

AP5011029

...hydroxyethyl)aminobenz-2,1,3-selenadiazole in the reaction with diethano-

...of the di(beta-...

...derivatives of ...

...: Leningradskiy khimiko-farmatsevticheskiy institut (Leningrad ... Institute

...: 26Jun63 ENCL: 00 SUB CODE: OC, GC

... 006 OTHER: 00[illegible]

D'Yachenko, S.K.

SHATS, Yakov Yudelevich, kandidat tekhnicheskikh nauk; LEUTA, V.I., inzhener, redaktor; D'YACHENKO, S.K., retsenzent, kandidat tekhnicheskikh nauk, dotsent; LYKHOTA, N.A., tekhnicheskiy redaktor

[Locking threaded joints] Stoporenie rez'bovykh soedinenii. Izd.2-oe, perer. Kiev, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry, 1955. 75 p. (MIRA 9:3)

(Screw threads)

D'yachenko, S.K.

DASHKEVICH, Boris Petrovich, professor; D'YACHENKO, Stepan Kuz'mich; STOLBOVOY, Sergey Zakharovich; BONDAROVSKIY, Z., redaktor; SAMOKHVALOV, Ya., redaktor; KOCHERGA, N., redaktor; KUDRYAVTSEV, G., redaktor; GOLOVCHENKO, G., tekhnicheskiy redaktor.

[Collection of machine part drawings; transmissions] Atlas detalei mashin; peredachi. Pod red. B.P.Dashkevicha. Kiev, Ges.izd-vo tekhn. litry USSR, 1955.154 p. [Supplement to the diagrams] Prilozhenie k chertezham. 1955. 83 p. (MLRA 9:5)

(Power transmission)

PHASE I BOOK EXPLOITATION 798

Dashkevich, Boris Petrovich, Professor, D'yachenko, Stepan Kuz'mich and Stolbovoy, Sergey Zakharovich

Atlas detaley mashin; peredachi (Atlas of Machine Parts; Transmissions) Kiyev, Gostekhizdat USSR, 1958. 175 p. 30,000 copies printed.

Ed. (title page): Dashkevich, Boris Petrovich, Professor; Ed. (inside book): Kudryavtsev, G.; Tech. Ed.: Patsalyuk, P.

PURPOSE: The atlas is intended for students of vtuzes and for machine designers.

COVERAGE: The atlas contains drawings and general views of various drives and production drawings of their basic parts. There is an accompanying text briefly describing the mechanisms, units and parts shown. The Appendix contains information necessary for making working drawings. There are 30 references, of which 24 are Soviet, 5 English, 1 German.

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Atlas of Machine Parts; Transmissions 798

TABLE OF CONTENTS:

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Atlas of Machine Parts; Transmissions 798

Card 3/6

AXLES, SHAFTS, BEARINGS. LUBRICATING DEVICES.

Atlas of Machine Parts; Transmissions 798

Card 5/6

AVAILABLE: Library of Congress

Card 6/6

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11-28-58

DASHKEVICH, Boris Petrovich; D'YACHENKO, Stepan Kuz'mich; STOLBOVOY, Sergey Zakharovich; KUDRYAVTSEV, G.P., inzh., red.; GUSAROV, K., tekhn.red.

[Machine parts; design work for course credit] Detali mashin; kursovoe proektirovanie. Izd.2. Kiev, Gos.izd-vo tekhn.lit-ry USSR, 1960. 295 p. (MIRA 13:12)
(Machinery--Design)

S/110/60/000/011/004/012
E194/E484

AUTHORS: D'yachenko, S.K., Candidate of Technical Sciences, Bogdanov, O.I., Candidate of Technical Sciences, Dovzhuk, A.Ya., Engineer and Tokar', I.Ya., Engineer

TITLE: An Experimental Study of Annular (Hydrogen) Seals on a Turbo-Generator Shaft Having a Conical Bearing Surface

PERIODICAL: Vestnik elektropromyshlennosti, 1960, No.11, pp.41-43

TEXT: The bearing surfaces of annular seals usually consist of separate fixed sectors and contain surfaces that slope to the direction of motion and also areas parallel to the thrust block, see Fig.1. These shapes have to be made by hand which is rather inaccurate. An article by Tokar' in Vestnik elektropromyshlennosti No.6, 1960 described annular seals with bearing surface of conical shape, that is with a wider gap at the small diameter than at the large, see Fig.2. The previous work showed that although there is no slope in the direction of the motion, the conical oil film can withstand considerable loads. The object of the present article was to check the correctness of the calculations given in the previous article and to establish the reliability of the seal. The Elektrotyazhmash Works built a rig to test the glands for a

Card 1/3

S/110/60/000/011/004/012
E194/E484

An Experimental Study of Annular (Hydrogen) Seals on a Turbo-Generator Shaft Having a Conical Bearing Surface

turbo-alternator of 200 MW, the main dimensions are given. The measurement procedure is described. The oil flow and the temperature were measured. The oil pressure was measured at inlet to the seal and in the circular channel, see Fig.2. The induction method with U-shaped transformer type transducers was used to measure the minimum oil film thickness, the arrangement is shown in Fig.3. The circuit used to measure the oil film thickness is shown in Fig.4. The method of measurement is independent of the temperature of the medium surrounding the inductive transducers. A calibration curve for the instrument is given in Fig.5. It will be seen that the sensitivity of the circuit is about 1 micron in the thickness range up to 30 microns and 2.5 microns in the range up to 150 microns. The main tests were made with a gas pressure inside the frame of 3 atm with a spring pressure of 100 kg and the results are tabulated. The minimum film thickness with a gas (hydrogen) pressure of 3.2 kg/cm^2 and oil pressure of 3.6 kg/cm^2 was 0.12 mm. The agreement between calculated and experimental values is satisfactory and

Card 2/3

S/110/60/000/011/004/012
E194/E484

An Experimental Study of Annular (Hydrogen) Seals on a Turbo-Generator Shaft Having a Conical Bearing Surface

accordingly the formulae given in the previous article are recommended for practical use. There are 5 figures, 1 table and 2 Soviet references.

SUBMITTED: May 25, 1960

Card 3/3

TKACHENKO, Viktor Andreyevich; DOBROVOL'SKIY, V.A., prof., doktor tekhn. nauk, retsenzent; D'YACHENKO, S.K., dots., kand. tekhn. nauk, retsenzent; KOSTYUK, D.I., kand. tekhn. nauk, otv. red.; TRET'YAKOVA, A.N., red.; KOGAN, Ye.M., tekhn. red.

[Designing multisatellite planetary transmissions] Proektirovanie mnogosatellitnykh planetarnykh peredach. Khar'kov, Izd-vo Khar'kovskogo gos.univ. im. A.M.Gor'kogo, 1961. 181 p. (MIRA 15:8)
(Gearing)

D'YACHENKO, S.K., dotsent; KIRCHACH, N.F., assistent; MAKEYEV, B.A., assistent

Determining ultimate torque of a starting safety coupling filled with small shots. Izv.vys.ucheb.zav.; mashinostr. no.8:64-71 '61. (MIRA 15:1)

1. Khar'kovskiy politekhnicheskiy institut.
(Torque--Measurement)

TOKAR', I.Ya., kand.tekhn.nauk; D'YACHENKO, S.K., kand.tekhn.nauk;
BOGDANOV, O.I., kand.tekhn.nauk; DOVZHUK, A.Ya., inzh.

Concerning the design of the end seals of a turbogenerator rotor. Vest. elektroprom. 32 no.5:68-70 My '61. (MIRA 15:5)
(Turbogenerators)

D'YACHENKO, Stepan Kuz'mich, kand. tekhn.nauk; KIRKACH, Nikolay Fedorovich, kand. tekhn.nauk; YESIPENKO, Ya.I., kand. tekhn nauk, retsenzent; KUDRYAVTSEV, G.P., red. izd-va; VASILENKO, M.A., red.izd-va; MATUSEVICH, S.M., tekhn. red.

[Safety clutches] Predokhranitel'nye mufty. Kiev, Gostekh-izdat USSR, 1962. 119 p. (MIRA 16:5)
(Clutches (Machinery))

D'YACHENKO, Stepan Kuz'mich, kand. tekhn. nauk, dots.; STOLBOVOY, Sergey Zakharovich, kand. tekhn.nauk, dots.; KUDRYAVTSEV, G.P., inzh., red. izd-va; GUSAROV, K.F., tekhn. red.

[Machine parts; an atlas] Detali mashin; atlas. Kiev, Gostekhizdat USSR, 1962. 257 p. (MIRA 16:8)
(Machinery--Design and construction)

D'YACHENKO, Stepan Kuz'mich, kand. tekhn. nauk; SOLBOVOY, Sergey Zakharovich, kand. tekhn. nauk; RAYKO, M.V., kand. tekhn. nauk, retsenzent; YESIPENKO, Ya.I., kand. tekhn. nauk, red.

[Design of machine parts] Raschet i proektirovanie detalei mashin. Kiev, Tekhnika, 1964. 314 p. (MIRA 17:12)

BOGDANOV, O.I., kand.tekhn.nauk; DOVZHUK, A.Ya., kand.tekhn.nauk;
D'YACHENKO, S.K., kand.tekhn.nauk

Device for controlling the thickness of the oil film in slide bearings. Elektrotekhnika 35 no.4:45-46 Ap '64. (MIRA 17:4)

L 45620-66 EWT(m)/T WW/DJ

ACC NR: AT6016854 (N) SOURCE CODE: UR/3189/65/000/001/0087/0095

AUTHOR: Poltavskiy, Yu. D.; D'yachenko, S. K.

ORG: None

TITLE: A method for calculating the carrying capacity of wedge-shaped oil layers in noncircular plain bearings on lightly loaded reversible shafts

SOURCE: Kharkov. Politekhnicheskiy institut. Vestnik, no. 1(49), 1965. Mashinostroyeniye, no. 1, 87-95

TOPIC TAGS: lubricating oil, journal bearing, PRESSURE GRADIENT

ABSTRACT: An exact expression is found for the law of variation in the thickness of the oil layer in a cylindrical bearing in terms of the coordinate along which the pressure gradients are distributed. It is shown that approximation of the profiles of a cylindrical bearing and shaft results in extremely simple expressions for the variation in the thickness of the oil film in the clearance between a noncircular bearing and a circular shaft, and the carrying capacity of the oil layer in two-wedge, three-wedge symmetric and three-wedge asymmetric noncircular bearings is approximated. Orig. art. has: 6 figures, 33 formulas.

SUB CODE: 13/ SUBM DATE: None/ ORIG REF: 002/ OTH REF: 003

Card 1/1 mjs

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Animal experiments on the antiserums against Vi typhoid bacilli. I. S. S. D'yachenko. *Z. Mikrobiol. Epidemiol. Immunitätsforsch.* (U. S. S. R.) 10, 67 (from English 71)(1937). Injection into horses of living cultures of typhoid bacillus 205 D yielded a corresponding Vi antiserum, contg. a titer of 1:100 of Vi antibodies and 1:20,000 of O-antibodies. Simultaneous injection of 3 m. l. d. of culture and 0.01–0.1 cc. serum into mice caused no deaths. With 0.001 and 0.0001 cc. serum 30 and 40%, resp., of the mice died. When the serum was used after incubation at 47° for 1 hr. all the mice at the 0.01-cc. level survived, at the 0.001-cc. level 40% died and at 0.0001 cc. all the mice, as well as the controls, died. Similar results were obtained when the serum was injected 1 hr. after injection of the culture. S. A. Karjala

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

DYACHENKO, S. S.

"Academician D. K. Zabolotnyy (Microbiologist and Epidemiologist; on the Twentieth Anniversary of His Death)", Vrachebnoye Delo, No. 1, pp 3-8, 1950.

1. DYACHENKO, S. S.

2. USSR (600)

7. "D. I. Ivanovskiy, Founder of the Science of Viruses (1864-1920)", Vrachebnoye Delo, No 6, 1951, pp 555-558.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

D'YACHENKO
[redacted], S.S. (Prof)

USSR/Medicine - Immunology Feb 51

"Dynamics of the Formation of Vi- and O-Agglutinins in the Process of Obtaining Antityphoid Therapeutic Serum. III. Vi- and O-Agglutinins Obtained by Immunizing Animals With a Live Typhoid Strain of the Smooth Type Lacking Vi-Antigen," Prof S. S. D'yachenko, Microbiol Div, Ukrainian Inst of Epidemiol and Microbiol, Kiev

"Mikrobiol Zhur" (Kiev), Vol XII, No 3, 1950, pp 53-59

The strain lacking Vi-antigen (virulence antigen), on being injected into animals, induced some formation of O-agglutinins, but none or practically none of Vi-agglutinins.

21Y46

21Y46

DYACHENKO, S.S., professor.

Professor Ivan Hryhorovych Savchenko, 1862-1932. Mikrobiol.zhur. 14 no.2: 66-69 '52. (MLRA 6:11)
(Savchenko, Ivan Hryhorovych, 1862-1932)

DYACHENKO, S.S.; POCHINOK, P.Ya.

Synergism of the effect of penicillin and of gallic acid in neutral and slightly alkaline solutions (preliminary report). Mikrobiol.zhur. 14 no.3: 22-27 '52. (MLRA 6:11)

1. Z Kiivs'kogo medichnogo institutu. (Penicillin) (Gallic acid)

D'YACHENKO, S. S.
USSR/Medicine - Tularemia Vaccine

Mar 53

"Allergic Reactions in Humans Following a Cutaneous Administration of Egg-yolk Tularemia Vaccine," S. S. D'yachenko, O. P. Khizhinkaya, and S. G. Buyalo

Mikrobiol. Zhur, Vol 15, No 1, pp 27-32

Cutaneous inoculation with egg-yolk vaccine produces readjustment within a human organism that follows usually the intracutaneous tularin test. The egg-yolk vaccine and the method of administration create sensitivity within an organism similar to that created by the transmitted form of tularemia infection. The intracutaneous allergic reaxtion to the living tularemia vaccine is a specific reaction, because it is positive only in those people who have recuperated from tularemia, those who have been revaccinated, or have received a cutaneous

vaccination. Reinoculation may be resorted to within two years, depending on epidemiological needs.

Z kafedri mikrobiologii Kiiv'skogo medichnogo instiututu.

258T21

USSR

The synergistic action of [illegible] and P. Ya. Pechilina (S. S. Dyachenko and P. Ya. Pechilina, *Mikrobiol. Zhur. Akad. Nauk Ukr. R.S.R.* Kiev). *Mikrobiol. Zhur. Akad. Nauk Ukr. R.S.R.* 16, No. 2, 47–53 (1954) (Russian summary).—It was pointed out in a previous communication that in the presence of gallic acid or its salts at neutral or slightly alk. pH, the antibacterial activity of penicillin is enhanced, and that Na gallate has a stabilizing effect upon penicillin subjected to boiling. The antibacterial properties of gallic acid and its salts depend to a considerable extent upon the pH of the medium and the number of bacterial cells in suspension, factors which also influence its synergism with penicillin. Taking these two factors into consideration, studies were conducted with aerobic bacteria. Conditions which favorably influence the antibacterial properties of gallic acid and its salts (pH 7.4–8.2, a minimal suspension of bacterial cells, the properly balanced concns. of the antibacterial agents) also lead to a max. synergistic antibacterial action. Na gallate effectively arrests the growth of *Micrococcus pyogenes* var. *aureus*, and var. *albus*, streptococci, *Proteus vulgaris*, *Pseudomonas aeruginosa*, *Corynebacterium bovis*, and others. Antibacterial synergism between gallic acid or its salts and penicillin is best expressed in relation to microörganisms naturally susceptible to the antibacterial action of the two drugs. Na gallate added to 1:40 soln. of penicillin prevents the decompn. of the latter for about 7 days at room temp. and at 37–39°. B. S. Levine

DYACHENKO, S.S.; ELISHINA, M.O.; KHRISTICH, V.M.

Investigating the antigen structure of Shigella paradysenteriae; Sonne preliminary report. Mikrobiol.zhur. 16 no.3: 64-69 '54. (MLRA 8:7)

1. Z mikrobiologichnogo viddilu Ukrain'skogo institutu epidemiologii ta mikrobiologii, m. Kiiv.

(ANTIGENS AND ANTIBODIES,
Shigella dysenteriae antigenic structure)
(SHIGELLA,
dysenteriae, antigenic structure)

DYACHENKO, S.S.; ELSHINA, M.O.

Study of the antigen structure of Shigella paradysenteriae Sonne; second report. Mikrobiol.zhur. 16 no.3:70-78 '54. (MLRA 8:7)

1. Z Mikrobiologichnogo viddilu Udrains'kogo institutu epidemiologii ta mikrobiologii, m. Kiiv.
(SHIGELLA,
dysenteriae, antigenic structure)
(ANTIGENS AND ANTIBODIES,
Shigella dysenteriae antigenic structure)

DYACHENKO, S.S.; VOLKOVA-SHARAVS'KA, N.M.; MIZRUKHIN, I.A.

Effect of prolonged interrupted sleep on formation of agglutinins.
Medych.zhur.24 no.1:7-15 '54. (MLRA 8:10)

1. Kiivs'kiy medichniy institut im. akad. O.O.Bogomol'tsya, kafedry mikrobiologii i psikhiatrii.
(AGGLUTINATION,
eff. of prolonged sleep on agglutinin form)
(SLEEP, effects,
on agglutinin form)

DYACHENKO, S.S.; VOLKOVA-SHARAVSKAYA, N.M.; MIZRUKHIN, I.A.

Phagocytic activity of blood leucocytes as affected by prolonged interrupted sleep. Fiziol.zhur. [Ukr.] 1 no.6:19-27 N-D '55. (MLRA 10:1)

1. Kiivs'kiy medichniy institut imeni akademika O.O.Bogomol'tsya, kafedri mikrobiologii i psikhiatrii.

(LEUCOCYTES) (PHAGOCYTOSIS) (SLEEP--THERAPEUTIC USE)

DYACHENKO S.S.

GROMASHEVSKIY, L.V., professor, otvetstvennyy redaktor; DYACHENKO, S.S., professor, redaktor; YELSHINA, M.A., kandidat meditsinskikh nauk, redaktor; ZAYDENBERG, Ye.G., kandidat meditsinskikh nauk, redaktor; PADALKA, B.Ya., professor, redaktor; SEREBRENNIKOVA, V.I., kandidat meditsinskikh nauk, redaktor; SORVINA, L.Ye., kandidat meditsinskikh nauk, redaktor; TERSKHOV, S.N., kandidat meditsinskikh nauk, redaktor; KHOMENKO, G.I., professor, redaktor; ZATULOVSKIY, B.G., redaktor; LOKHMATYY, Ye.G., tekhnicheskiy redaktor

[Dysentery; a collection of scientific papers] Dizenteriia; ob"edinennyi sbornik nauchnykh rabot. Kiev, Gos.med. izd-vo USSR, 1956. 265 p. (MIRA 10:1)

1. Kiyevskiy institut epidemiologii i mikrobiologii. 2. Deystvitel'nyy chlen AMN SSSR (for Gromashevskiy)
(DYSENTERY)

DYACHENKO, Sergey Stepanovich

[Diagnostic microbiological investigations in infectious diseases] Diagnostychni mikrobiologichni doslidzhennia, pry infektsiinykh zakhvoriuvanniakh. Kyiv, Derzhmedvydav, URSR, 1957. 276 p. (MIRA 13:7)
(MICROBIOLOGICAL RESEARCH)

DYACHENKO, S.S.; BERNASOVS'KA, Ye.P.; ANCHEVS'KA, M.S.

Data on the biology of Shigella sonnei. Report No.1: Biological activity of complete Shigella sonnei antigen. Mikrobiol.zhur. 19 no.1:44-48 '57. (MLRA 10:7)

1. Z mikrobiologichnoi laboratorii Ukrains'kogo instituta epidemiologii ta mikrobiologii, m.Kiiv.
(SHIGELLA DYSENTERIAE, antigen, total (Uk))

DYACHENKO, S.S.; BERNASOVS'KA, Ye.P.; ANCHEVS'KA, M.S.; YAKUBOVS'KA, L.I.

Data on the biology of Shigella sonnei. Report No.2: Antigenic properties of the complete antigen of Shigella sonnei. Mikrobiol. zhur. 19 no.1:49-53 '57. (MLRA 10:7)

1. Z mikrobiologichnoi laboratorii Ukrains'kogo institutu epidemiologii ta mikrobiologii
(SHIGELLA DYSENTERIAE,
antigen, total (Uk))

DYACHENKO, S.S.

DYACHENKO, S.S.

Raise the level of microbiological sciences; review of "Mikrobiologichnyi zhurnal" of the Academy of Sciences of the Ukrainian S.S.R., vol.17, nos.1-4 and vol.18, nos.1-3. Mikrobiol.zhur. 19 no.2:64-69 '57. (MIRA 10:8)
(MICROBIOLOGY)

DYACHENKO, S.S., prof.

Development of medical microbiology in the Ukraine under the Soviets.
Vrach.delo no.1:11-17 Ja '58. (MIRA 11:3)

1. Kafedra mikrobiologii (zav.-prof. S.S.Dyachenko) Kiyevskogo meditsinskogo instituta.
(UKRAINE--BACTERIOLOGY, MEDICAL)

DYACHENKO, S.S., BERNASOVSKAYA, Ye.P. [Bernagova'ka, IE.P], GUREVICH, M.I. [Hurevych, M.I.], ANCHEVSKAYA, M.S. [Ancheva'ka, M.S.], IL'CHEVICH, N.V., [Il'chevych, M.V.]

Studying the effect of ultrasonic vibrations on some microorganisms. Report No.1: The destructive effect of ultrasound [with summary in English]. Fiziol.zhur. Ukr. 4 no.5:612-623 S-O '58 (MIRA 11:11)

1. Institut fiziologii im. A.A. Bogomol'tsa AN USSR, laboratoriya krovoobrashcheniya i dykhaniya i Kiyevskiy institut epidemiologii i mikrobiologii, laboratoriya mikrobiologii.

(ULTRASONIC WAVES--PHYSIOLOGICAL EFFECT)
(BACTERIA)

DYACHENKO, S.S., prof.

Principal features of the development of theories of viruses in the Ukraine. Vrach.delo no.10:1017-1023 O '58 (MIRA 11:11)

1. Kafedra mikrobiologii (zav. - prof. S.S. Dyachenko) Kiyevskogo meditsinskogo instituta.
(VIRUSES)

DYACHENKO, S.S. [DIACHENKO, S.S.], POCHINOK, P.Ya. [POCHYNOK, P.IA]

Gallic acid-penicillin synergism. Report No.2: Some conditions for the stabilization of penicillin with sodium gallate. Mikrobiol. zhur. 20 no.1:30-34 '58 (MIRA 11:6)

1. Z Ukrains'kogo institutu epidemiologii ta mikrobiologii, Mikrobiologichna laboratoriya.
(PENICILLIN, administration,
sodium gallate stabilized prep. (Uk))
(GALLIC ACID, rel, cpds.
sodium gallate, stabilization of penicillin (Uk))

DYACHENKO, S.S.

Keeping in step with life; review of the "Mikrobiologichnyi zhurnal" of the Academy of Sciences of the Ukrainian SSR. vol 19. nos. 1-4. Mikrobiol. zhur. 20 no.4:64-66'58 (MIRA 16:8)
(UKRAINE—MICROBIOLOGY—PERIODICALS)

DYACHENKO, Sergey Stepanovich [Diachenko, IE.IE.], prof.; CHERKASOV, A.V., prof., glavnyy red.

[Urgent problems in preventive inoculation] Aktual'ni pytannia profilaktychnoi imunizatsii. Kyiv, 1959. 43 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' URSR. Ser.5, no.5) (MIRA 12:7)

(VACCINATION)