"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

78-3-4-9/38

On the Phase Diagram of the Ternary System Chromium-Tungsten-Molybdenum

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR (Metallurgical Institute imeni A. A. Baykov, AS USSR)

SUBMITTED: June 25, 1957

Card 3/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, D.I.

GRUM-GRZHIMAYLO, N.V.; PROKOF'YEV, D.I.

Phase diagram of the ternary system chromium-tungsten-molybdenum.
Zhur.neorg.khim. 3 no.4:889-895 Ap '58. (MIRA 11:4)

1.Institut metallurgii im. A.A. Baykova AN SSSR.
(Chromium-tungsten-molybdenum)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

GRUM-GRZHIMAYLO, N.V.; PROKOF'YEV, D.I.

Study of the structural diagram of the chromium - tungsten - molybdenum ternary system. Part 1: Microscopic and X-ray structural study of alloys. Zhur. neorg. khim. 3 no.5:1220-1226 My '58. (MIRA 11:6)

(Chromium-tungsten-molybdenum alloys--Metallography)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

AUTHORS: Grum-Grzhimaylo, N.V., Prokof'yev, D.I. 78-3-6-30/30

TITLE: Diagram With Holl-Effect in the Alloys of the Molybdenum-Tungsten System (Diagramma kholl-effekta sistemy splavov molibden-vol'fram)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 6, pp 1470-1471 (USSR)

ABSTRACT: The alloys of the molybdenum-tungsten system are characterized by a continuous series of solid solutions in the range of concentration of the components of from 0 to 100%. Up to now, no chemical compounds were found in the fields of solid solutions. The Holl-effect was applied for the determination of covalent chemical compounds in the alloys of the molybdenum-tungsten system. The alloys were produced from powdery molybdenum and tungsten in the vacuum-furnace T.BE-2 at temperatures of from 2000 to 2200°C by means of powder-metallurgy. The Holl-constant was calculated from these alloys. The results obtained were graphically represented in a system of coordinates in which the Holl-constant denotes the abscissa and the composition in atomic per cents signify

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78-3-6-30/30

Diagram With Holl-Effect in the Alloys of the Molybdenum-Tungsten System

the ordinate. It was found that a chemical compound of MoW exists due to the dependence of the change of the constant of the Holl-effect on the composition in the binary system of molybdenum-tungsten. There are 1 figure, 0 tables, and 5 references, 3 of which are Soviet.

SUBMITTED: October 25,1957

AVAILABLE: Library of Congress

1. Molybdenum-tungsten alloys--Phase studies

Card 2/2

USCOMM-DC-55298

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

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21753
S/078/61/006/005/009/015
B121/B208

18.7520 1145, 1555, 1454

AUTHORS: Grum-Grzhimaylo, N. V., Prokof'yev, D. I.

TITLE: X-ray examination of solid solutions of the system chromium - tungsten - molybdenum formed at high temperatures

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 5, 1961, 1155 - 1164

TEXT: Solid solutions of the ternary system chromium-tungsten-molybdenum were X-rayed to study the effect of the concentration of the components on the lattice parameters. The preparation of chromium-tungsten-molybdenum alloys has already been described by N. V. Grum-Grzhimaylo and D. I. Prokof'yev (Ref. 1: Zh. neorgan. khimii, 3, 1220 (1958)). The composition of the alloys along the cuts with constant content of one of the components is presented in a table. In the X-ray analysis negatives were taken with the KPOC-1 (KROS-1) camera. The parameters were determined with an accuracy of + 0.004 kX. Solid ternary solutions were found to be formed at elevated temperatures in the system chromium-tungsten-molybdenum. When these alloys are annealed, the solid solutions decompose. The linear

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X-ray examination of solid ...

dependence of the lattice parameters of ternary alloys was calculated for different mixing ratios and summarized in the above-mentioned table. With increasing chromium content in the alloys the lattice parameter evenly decreases, and the curvature of the isoparameter is changed. The chromium atom causes a dilation of the lattices deviating from the Wegart rule in the binary solid solutions of the systems chromium-tungsten and chromium-molybdenum. A maximum diminution of the crystal lattices occurs in alloys with 50 and more atom% Cr. With increasing chromium content the lattice parameters of the ternary alloys slowly decrease. Molybdenum and tungsten also change the lattice parameters; in the ternary solid solution this change depends linearly on the composition. The mutual solubility in solid state, experimentally found by X-ray and microscopic examination of the alloys of the ternary system chromium-tungsten-molybdenum, confirmed the assumption of I. I. Kornilov (Ref. 12: Dokl. AN SSSR, 114, No. 1 (1957)) saying that these three metals form continuous series of solid solutions, both as ternary and also as binary systems. L. N. Guseva is thanked for her interest in the experiments and in the discussion of the results. The following papers by Soviet authors are mentioned: Ref. 7: V. G. Kuznetsov, Izv. Sektora platiny AN SSSR, vyp. 20 (1947); Ref. 9: V. G. Kuz-

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S/078/61/006/005/009/015
B121/B208

X-ray examination of solid ...

netsov, Izv. Sektora fiz.-khim. analiza AN SSSR, 16 (1946); 16 (1948); Ref. 10: V. G. Kuznetsov, L. N. Guseva, Izv. AN SSSR, ser. khim., no. 6, 905 (1940); Ref. 11: V. G. Kuznetsov, Ye. S. Makarov, Izv. Sektora fiz.-khim. analiza, 13, 177 (1940). There are 14 figures, 1 table, and 12 references: 6 Soviet-bloc and 6 non-Soviet-bloc. The references to English-language publications read as follows: Ref. 5: H.T. Greenaway, J. Inst. Metals, 80, 589 (1952); Ref. 6: W. B. Pearson, Handb. of lattice spacings and structures of metals and alloys 1958; Ref. 8: A. G. Andersen, E. R. Jette, Trans. ASM, 24, 519 (1936).

SUBMITTED: April 22, 1960

Table: Lattice parameters of the alloys of the solid solution of the system chromium-tungsten-molybdenum. Legend: (a) Composition of the alloy; (1) wt%, (2) atom%; (b) lattice parameter, kX ; (3) found; (4) calculated; (5) difference.

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X-ray examination of solid ...

(a) Состав сплава					(b) Параметр решетки, kX		
(1) вес. %		(2) ат. %			(3) найденный	(4) вычисленный	(5) разница
Cr	W	Cr	W	Mo			
80	10	90,7	3,20	6,15	2,905	2,905	+0,000
70	20	86,2	7,0	6,80	2,918	2,916	+0,002
60	30	81,2	11,5	7,3	2,937	2,930	+0,007
50	40	75,0	17,0	8,0	2,952	2,947	+0,005
40	50	67,2	23,8	9,0	2,977	2,969	+0,008
30	60	57,5	32,3	10,2	3,002	2,996	+0,006
20	70	44,2	43,8	12,0	3,044	3,033	+0,011
10	80	26,35	59,5	14,2	3,102	3,083	+0,019
5	85	14,6	69,6	15,8	3,130	3,115	+0,015
70	10	83,5	3,5	13,0	2,930	2,927	+0,003
60	20	78,5	7,5	14,0	2,941	2,936	+0,005
50	30	72,0	12,3	15,7	2,966	2,954	+0,012
40	40	64,5	18,2	17,3	2,982	2,975	+0,007
30	50	54,7	25,7	19,6	3,012	3,001	+0,011
20	60	42,0	35,5	22,5	3,045	3,037	+0,008
10	70	24,4	49,0	26,6	3,096	3,086	+0,010
5	75	13,3	57,4	29,3	3,130	3,116	+0,014
60	10	76,0	3,7	20,3	2,956	2,942	+0,014
50	20	69,5	8,0	22,5	2,974	2,960	+0,014
40	30	61,9	13,1	25,0	2,994	2,981	+0,013
30	40	52,1	19,9	28,0	3,018	3,008	+0,010
20	50	39,9	28,1	32,0	3,047	3,041	+0,006
10	60	23,2	39,2	37,5	3,096	3,087	+0,009

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50	10	67,0	4,1	28,9	2,984	2,966	+0,018
40	20	59,2	8,3	32,2	2,997	2,986	+0,011
30	30	50,0	14,0	36,0	3,028	3,012	+0,016
20	40	37,7	21,3	41,0	3,055	3,046	+0,009
10	50	21,8	31,0	47,2	3,093	3,089	+0,004
40	10	57,0	4,2	38,8	3,098	2,992	+0,016
30	20	47,8	9,0	43,2	3,032	3,017	+0,015
20	30	35,8	15,2	49,0	3,062	3,050	+0,012
10	40	20,5	23,5	56,0	3,096	3,091	+0,005
30	10	45,8	4,4	49,8	3,036	3,021	+0,015
20	20	34,0	10,0	56,0	3,070	3,053	+0,017
10	30	19,8	16,6	63,6	3,100	3,092	+0,008
20	10	32,7	4,9	62,4	3,073	3,056	+0,017
10	20	18,6	10,6	70,8	3,103	3,094	+0,009
10	10	18,0	5,0	77,0	3,104	3,095	+0,009

TABLE CONT'D

X

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Prokofyev, D. I.

18(7) PHASE I BOOK EXPLOITATION SOV/3355

Akademiya nauk SSSR. Institut metallurgii. Nauchnyy sovet po probleme zharoprochnykh splavov

Issledovaniya po zharoprochnym splavam, t. IV (Studies on Heat-resistant Alloys, vol. 4), Moscow, Izd-vo AN SSSR, 1959. 400 p. Errata slip inserted. 2,200 copies printed.

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

PURPOSE: This book is intended for metallurgists concerned with the structural metallurgy of alloys.

COVERAGE: This is a collection of specialized studies of various problems in the structural metallurgy of heat-resistant alloys. Some are concerned with theoretical principles, some with descriptions of new equipment and methods, others with properties of specific materials. Various phenomena occurring under specified conditions are studied and reported on. For details, see Table of Contents. The articles are accompanied by a number of references, both Soviet and non-Soviet.

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Gulyayev, A. P., and I. V. Chernenko. Effect of Plastic Deformation at Low Temperatures on the Heat-resistant Properties of Type 18-8-Ti Austenitic Steel 214

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Ageyev, N. V., and V. A. Trapeznikov. Production of Pure Chromium 237

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Grum-Grzhimaylo, N. V., and D. I. Prokof'yev. Constitution Diagram of the Ternary System Chromium-Tungsten-Molybdenum 257

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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOFIYEV, D. I.

AUTHORS: Grum-Grzhimaylo, N. V., Prokof'yev, D. I. 78-3-5-28/39

TITLE: Investigations on the Phase Diagram of the Ternary System Chromium-Tungsten-Molybdenum (Izucheniye diagrammy sostoyaniya troynoy sistemy khrom-vol'fram-molibden). I. Microscopic- and X-ray Structural Investigations of the Alloys (I. Mikroskopicheskoye i rentgenostrukturnoye issledovaniye splavov)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol 3, Nr 5, pp 1220-1226 (USSR)

ABSTRACT: The phase composition and the structure of the ternary alloys of the ternary system chromium-tungsten-molybdenum were investigated. The alloys with isothermic sections were investigated at 1800, 1300 and 1000°C, in every concentration within the triangle of the ternary system. At 1800°C chromium, tungsten and molybdenum form, in all concentrations of the triangle, continuous series of solid solutions with a cubically volume-centered lattice. The continuous solid solutions which were formed are unstable at reduced temperature. The high-temperature-resistant solid ternary-system-solutions decompose, upon thermic treatment, into two

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

Investigations on the Phase Diagram of the Ternary System Chromium-Tungsten-Molybdenum. I. Microscopic- and X-ray-structural Investigations of the Alloys 78-7 5-28/39

ternary-solid solutions, one of which on the basis of chromium, the other on the basis of tungsten. At temperatures of from 1300 to 1000°C, fields of diphase alloys are formed in the ternary system, which begin at the side of the binary chromium-tungsten-system, and which continue into the interior of the triangle of the ternary system. The ternary alloys in the molybdenum-corner are monophase at all temperatures. The limit of the diphase part in the ternary system was determined on two isothermal sections at 1300 and 1000°C. There are 7 figures, 1 table, and 27 references, 6 of which are Soviet.

SUBMITTED: May 15, 1957

AVAILABLE: Library of Congress

1. Chromium-tungsten-molybdenum alloys--Phase studies 2. Chromium-tungsten-molybdenum alloys--Microanalysis 3. Chromium-tungsten-molybdenum alloys--Structural analysis

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B110/B138

12.1200

AUTHORS: Grum-Grzhimaylo, N. V., Prokof'yev, D. I.

TITLE: Polythermal disintegration volume of the ternary solid solution in the Cr-W-Mo system

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 3, 1962, 596-604

TEXT: Ternary alloys of the Cr-W-Mo system were examined, and the disintegration volume of the α-ternary solid solution was determined. The initial curves of the lattice parameters of the solid solution are available from the parametric surface of the homogeneous ternary solid solution. From measured lattice parameters, the composition/lattice parameter curves were plotted for three groups of sections: (1) Alloys with constant (10, 20, 30%) Mo content. From these diagrams the points of intersection of the lines of the α_1 (Cr-rich) and the α_2 (W-rich) phases with those of the homogeneous α-ternary solid solution were found, and thus the homogeneity boundary of the ternary solid solution. (2) Alloys with constant Cr, and, (3), W content. These diagrams revealed the critical point on the binodal curve of the isothermal section and the critical line on the surface of the

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disintegration volume of the solid solution. In sections with constant (50, 30, 20%) Cr content the parameter lines of the α_1 phase intersect that of the α solid solution, and consequently, these sections pass through the binodal curve of the isothermal sections to the left and at 10% Cr to the right of the critical point. In the constant W section (40, 50, 60%) the parameter lines of the α_1 and the α_2 phases intersect the parameter curve of the α-ternary solid solution in one point (at 40% W), from which the critical point on the binode is found, 1000°C. The boundary of the two-phase range of disintegration can be found on the isothermal sections for 1000, 1300, and 1600°C (Fig. 5). As the disintegration volume varies considerably with temperature ageing possibilities can be determined. The dissociation binode at 1600°C, bounding the two-phase alloy range is a continuous closed curve, and must therefore have two critical points. Dissociation temperature of the α-homogeneous solid solution rises on Mo addition to the binary Cr-W alloy. This ternary critical point in above the binary critical point of the Cr-W dissociation range binode. A critical points exists on the 1000 and 1300°C binodes. The isoparametric method was used to determine the position of conoids (Fig. 6) in the two-

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phase range of isothermal sections. The isoparametric curves of the homogeneous α-ternary solid solution and the solubility curves at 1000 and 1300°C show the variation in lattice parameters along the binodel. For a number of alloys the 1000°C conoids show a divergence. Analysis revealed a third phase α_x, with body-centered cubic lattice which may be the cause of the unstable disintegration curves. The dome-shaped binodal surface of the disintegration volume with ternary critical point is clearly illustrated in Fig. 8. It closes inside the temperature-concentration prism separating the closed disintegration volume of the ternary solid solution. The asymmetry is probably due to the deformation energy of the crystal lattice as a result of the difference in atomic diameters and the elastic properties of Cr, W, and Mo. The ternary critical point K is shifted toward the elastic W and Mo. Since the Cr-W-Mo systems formed by Mo addition to binary Cr-W systems and having a deformed crystal lattice are in the energetic stressed state, dissociation into two conjugate phases with the same crystal lattice causes greater thermodynamic stability and eliminates the stresses. V. G. Kuznetsov, Izv. Sektora fiz-khim. analiza, 16, 232 (1946), B. Ya. Pines. Zh. neorgan. khimii, 3, 611 (1958) are mentioned. There are 8 figures, 1 table, and 12 references: 8 Soviet and 4 non-Soviet. The two

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

GRUM-GRZHIMAYLO, N.V.; PROKOF'YEV, D.I.

Polythermal volume of decomposition of a ternary solid solution in the system chromium - tungsten - molybdenum. Zhur.neorg.khim. 7 no.3:596-604 Mr '62. (MIRA 15:3)
(Chromium-tungsten-molybdenum alloys)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

GRUM-GRZHIMAYLO, N.V.; PROKOF'EV, D.I.

X-ray examination of solid solutions of the system chromium - tungsten - molybdenum at high temperatures. Zhur.neorg.khim. 6 no.5:1155-1164 My '61. (MIRA 14:4)

(Chromium-tungsten-molybdenum alloys)

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PROKOF'YEV, E.A.

[Efforts of the Decembrists in behalf of a progressive military art for Russia] Bor'ba dekabristov za peredovoe russkoe voennoe iskusstvo. Moskva, Izd-vo Akademii nauk SSSR, 1953. 312 p. (MLRA 6:7)
(Decembrists) (Military art and science--History)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

S/035/61/000/003/047/048
A001/A101

AUTHOR: Prokof'yev, F.I.

TITLE: On classification of topographic maps and improvement of their content

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 3, 1961, 19, abstract 3G164 (V sb. "Ispol'zovaniye topogr. kart pri geogr. issled", Moscow, AN SSSR, 1958, 75 - 86)

TEXT: The author describes the purposes of topographic maps and proposes their classification according to their purpose and content into three groups: basic topographic maps, scales 1:100,000 and 1:50,000; economic-topographic maps, scales 1:25,000, 1:10,000 and 1:5,000, and municipal-topographic maps, 1:2,000, 1:1,000 and 1:500. To improve the content of topographic maps, the author proposes to mark on the maps the relief of the country in addition to the contours, in surveys carried out by agencies of agriculture and forestry; populated points should be marked taking into account the main signs of their classifi-

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A001/A101

On classification of topographic maps ...

cation (occupation, composition and quantity of population); industrial-administrative points, agricultural and mixed settlements and special constructions should be singled out on the maps; boundaries of land utilization, land parcels and state cattle drive paths, should be marked on the large-scale maps.

V. Agafonov

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

MINAYEV, Georgiy Aleksandrovich; SHAT'KO, Nina Ivanovna; D'YAKOV, G.S., retsenzent; POVALYAYEV, P.I., dots., retsenzent; PROKOF'YEV, F.I., dots., retsenzent; KULIKOV, A.A., starshiy prepodavatel', retsenzent; YUROV, S.I., red.; KOMAR'KOVA, L.M., red. izd-va; ROMANOVA, V.V., tekhn. red.

[Safety engineering in topographic and geodetic work]Tekhnika bezopasnosti na topografo-geodezicheskikh rabotakh. Moskva, Geodezizdat, 1962. 226 p. (MIRA 15:9)
(Surveying--Safety measures)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

TETERIN, Yegor Nikolayevich; SHUBIN, Nikolay Vasil'yevich; OCHERET'KO, Aleksandr Konstantinovich; PAVLOV, Vitaliy Fedorovich, dots; BARANOV, A.N., retsenzent; SUKHOV, A.I., retsenzent; POVALYAYEV, P.I., nauchn.-pedagog. rabotnik, retsenzent; PROKOF'YEV, F.I., nauchn.-pedagog. rabotnik, retsenzent; RYCHKOV, A.I., nauchn.-pedagog. rabotnik, retsenzent; YURO'Y, S.I., retsenzent; KHROMCHENKO, F.I., ved. red.

[Organization and planning of surveying and topographical work] Organizatsiia i planirovanie geodezicheskikh i topograficheskikh rabot. Moskva, Nedra, 1965. 299 p. (MIRA 18:7)

1. Zaveduyushchiy kafedroy organizatsii i planirovaniya kartografo-geodezicheskikh rabot Moskovskogo instituta inzhenerov geodezii, aerofotos"yemki i kartografii (for Sukhov). 2. Kafedra organizatsii i planirovaniya kartografo-geodezicheskikh rabot Moskovskogo instituta inzhenerov geodezii, aerofotos"emki i kartografii (for Povalyayev, Prokof'yev, Rychkov, Pavlov). 3. Glavnoye upravleniye kapital'nogo stroitel'stva Ministerstva putey soobshcheniya SSSR (for Rychkov). 4. Nachal'nik Glavnogo upravleniya geodezii i kartografii SSSR (for Baranov).

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, F. I.

NIKOLAYEVSKAYA, Ye.M.

3(4) b.3 PHASE I BOOK EXPLOITATION SOV/1779

Akademiya nauk SSSR. Institut geografii.

Ispol'zovaniye topograficheskikh kart pri geograficheskikh issledovaniyakh. (Use of Topographic Maps in Geographical Exploration) Moscow, Izd-vo AN SSSR, 1958, 118 p. 2,000 copies printed.

Resp. Ed.: N.P. Leont'yev, Candidates of Technical Sciences; Ed. of Publishing House: V.S. Volynskaya; Tech. Ed.: S.G. Markovich

PURPOSE: This book is intended for geographers or cartographers who use topographic maps in connection with their activity.

COVERAGE: This book is a collection of papers given at the Interdepartmental Conference on Topographic Maps called by the Institute of Geography, Academy of Sciences, USSR in 1955. The aim of the conference was to discuss and solve problems in the use of maps and to find means of improving the contents of maps. Included in the papers are discussions of map making methods, contents of Soviet maps, the use of maps for physico-

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geographical studies, the classification of topographic maps, and others. A portion of the book is devoted to a discussion of the papers presented. The author thanks R.S. Narskikh, N.S. Podobedov, and L.Ye. Setunskaya for their help in preparing the work for publication. Each article is followed by a list of references.

Use of Topographic Maps (Cont.) SOV/1779

Podobedov, N.S. Some Problems in the Use of Topographic Maps for the Physical Geographic Study of the USSR 37

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Ramazanov, G.A. The Use of Topographic Maps in the Study of Virgin and Uncultivated Lands 56

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PROKOF'YEV, F.Ya., master

Electromagnetic by-pass unit in a reducing valve. Elek. sta. 36 no.12:75-76 D '65. (MIRA 18:12)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

NEDOSTUP, G.A.; PROKOF'YEV, F.N.; KHOLIN, A.I.; TSITOVICH, A.P.

Use of differential gamma spectrometry in petroleum geology.
Prikl. geofiz. no.23:193-201 '59. (MIRA 13:1)
(Oil well logging, Radiation)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

Prokof'yev, F.N.

3(5,6) PHASE I BOOK EXPLOITATION SOV/2899

Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki

Prikladnaya geofizika; sbornik statey, vyp. 23 (Applied Geophysics; Collection of Articles, No.23) Moscow, Gostoptekhizdat, 1959. 242 p. 3,500 copies printed.

Ed.: M.K. Polshkov; Exec. Ed.: N.N. Kuz'mina; Tech. Ed.: A. S. Polosina.

PURPOSE: This book is intended for scientific, engineering, and technical personnel of industrial geophysical exploration services.

COVERAGE: This is a collection of 14 articles by various authors on aspects of geophysical exploration. The material treated in the articles may be divided into four categories: the physical properties of rocks in specific geological regions, methods and techniques used in industrial geophysical exploration, concepts in the theory of electrical exploration, and the economics involved in geophysical operations. Specifically, the authors discuss the geologic structures of the central parts of the Russian Platform, southwestern Turkmenia, the West Siberian Plains, the eastern part of the Siberian Platform, and the Minusinsk basins; electrical frequency sounding, neutron logging, gamma spectrometry techniques, and the standard equipment and installations of the geophysical services of the petroleum industry in the USSR. References accompany each article.

Nikolayevskiy, A.A. Density Characteristics of the Geological Profile of the Eastern Part of the Siberian Platform 112

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Tarkov, A.P. Nature of the Anomalous Gravitational Field of the Minusinsk Basins 136

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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, G., starshiy tekhnik-leytenant; FEDOROVSKIY, B., kapitan; KASATKIN, B., inzh.-mayor; LITVINOV, V., inzh.-kapitan; SKLYARSKIY, O., inzh.-kapitan; VOROB'YEV, K., inzh.-podpolkovnik

Suggestions, comments. Av.i kosm. 46 no.7:81-86 Jl '63. (MIRA 16:8)

(Aeronautics)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, G.I.

Treatment of periodontitis by introducing penicillin through the root canal of a tooth. Stomatologiia no.2:55 Mr-Ap '54. (MLRA 7:4)
(Teeth--Diseases) (Penicillin)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, G.M.

Pulley block for joigning conveyer belts. Der.prom.5 no.8:23 Ag '56. (MLRA 9:10)

1.Maklakovskiy lesozavod Minlesprema SSSR.
(Conveying machinery) (Pulleys)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, G.P. (Moskva)

Musical image and its presentation by the performer. Vop. psikhol. 5 no.5:59-70 S-O '59. (MIRA 13:3)
(Music--Performance)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, I., kand. tekhn. nauk; ANISIMOV, A., kand. tekhn. nauk.

Economical efficiency of using automobiles equipped with gas bags. Avt. transp. 36 no.2:22-23 F '58. (MIRA 11:2)

1. Saratovskiy avtomobil'no-dorozhnyy institut.
(Automobiles--Engines (Compressed gas))

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, I., instruktor turizma

Waterfall near Moscow. Nauka i zhizn' 29 no.7:111 Jl '62. (MIRA 16:6)

(Moscow region--Waterfalls)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

ARTEM'YEV, S.; BABKOV, V.; BIRULYA, A.; BOGOMOLOV, A.; BOCHIN, V.; BRILING, N.; VAKHRUSHIN, N.; VOLKOV, M.; GURARIY, M.; DADENKOV, Yu.; YEFREMOV, V.; ZELENKOV, G.; IVANOV, N.; IGOLKIN, N.; KUDRYAVTSEV, A.; LITVIN, N. MIKHAYLOV, V.; PROKOF'YEV, I.; SARKIS'YANTS, G.; ROMANENKO, I.; STRAMENTOV, A.; FEDOROV, V.; KHACHATUROV, A. i dr.

Anatolii Pavlovich Khmel'nitskii. Avt. dor. 21 no.12:30 D '58. (MIRA 12:1)

(Khmel'nitskii, Anatolii Pavlovich, 1907-1958)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, I., (g.Izhevsk).

This demands daily attention. Prom. koop. no.12:34 D '56. (MLRA 10:2)

(Udmurt A.S.S.R.--Cooperative societies)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, I.

Section of traffic safety. NTO 5 no.1:32-33 Ja '63.
(MIRA 16:5)

1. Uchenyy sekretar' sektsii bezopasnosti dvizheniya Krasnoyarskogo pravleniya Nauchno-tekhnicheskogo obshchestva gorodskogo khozyaystva i avtotransporta.
(Krasnoyarsk--Traffic safety)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, I.; ANISIMOV, A.

Training of engineers based on the new curricula. Avt. transp. 38 no. 5:49 My '60. (MIRA 14:2)

1. Direktor Saratovskogo avtomobil'no-dorozhnogo instituta (for Prokof'yev). 2. Dekan avtomobil'nogo fakul'teta Saratovskogo avtomobil'no-dorozhnogo instituta (for Anisimov).
(Saratov—Automobile engineering—Study and teaching)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, I.A., inzh.

New technology for operating technical inspection stations for railroad cars. Zhel.dor.transp. 42 no.5:77-78 My '60. (MIRA 13:9)

1. Nachal'nik vagonnogo depo Syzran', g. Syzran'.
(Railroads--Cars)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, I.A., podpolkovnik meditsinskoy sluzhby

Effect of the meteorological factors of Kislovodsk on atherosclerotic cardiosclerosis. Voen.-med. zhur. no.5:51-54 My '56. (MLRA 9:9)
(KISLOVODSK--CLIMATE) (HEART--DISEASES)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

NALIVKIN, Vladimir Alekseyevich; PROKOF'YEV, Ivan Iosifovich; PROTASOV, Boris Vasil'yevich; KOSTINA, V., red.; LUKASHEVICH, V., tekhn. red.

[Reconditioning parts by automatic building-up and welding] Vosstanovlenie detalei avtomaticheskoi naplavkoi i svarkoi. Saratov, Saratovskoe knizhnoe izd-vo, 1961. 85 p. (MIRA 15:7)

(Electric welding)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, I. M.

Prokof'yev, I. M. - "Improving the practice of calculating the cost of agricultural production on sovkhozes", Doklady (Mosk. s.-kh. akad. im. Timiryazeva), Issue 8, 1948, (In index: 1949), p. 13-18.

SO: U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, I. P., Prof.

Proskuryakov, Lavr Dmitryevich, 1858-1926.

Lavr Dmitryevich Proskuryakov. Stroi. prom. 31, No. 2, 1953.

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

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Technique of Studying Deformations by Means of Varnish Coatings. I. P. Prokofiev (*Vestnik Inzenerov i Tekhnikov* (*Messenger Eng. and Tech.*), 1936, (7): 411–417). [In Russian.] A description is given of the method for determining the presence and distribution of stresses by coating the surfaces of the articles with different varnishes. — N. A.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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PROKOFYEV, I.V.

18(6) PHASE I BOOK EXPLOITATION SOV/3199

Akademiya nauk SSSR. Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova

Analiz blagorodnykh metallov (Analysis of Noble Metals) Moscow, 1959. 193 p. Errata slip inserted. 2,700 copies printed.

Resp. Ed.: N. K. Pshenitsyn, USSR Academy of Sciences, Corresponding Member; and O. Ye. Zvyagintsev, Doctor of Chemical Sciences; Eds. of Publishing Houses: T. G . Levi, and D. N. Trifonov; Tech. Ed.: I. N. Guseva.

PURPOSE: This collection of articles is for scientists engaged in the study and analysis of the noble metals.

COVERAGE: This is a collection of articles on the analysis of the noble metals. It includes studies carried out by the Institute of General and Inorganic Chemistry im. N. S. Kurnakov (AN SSSR), as well as reports presented by scientific research organizations and by industrial enterprises at the Third and Fourth Conference on Noble Metals held in 1954 and 1957, respectively. The

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studies and reports describe new organic reagents for gravimetric determination of platinum metals, and physicochemical methods of analysis (spectrophotometric, polarographic and potentiometric). Special attention is given to spectral analysis for the determination of admixtures in alloys of platinum metals, silver, and gold, as well as in refined noble metals. The collection also includes analytical methods, tables and charts for materials containing metals of the platinum group, as well as a review of the literature on the analysis of platinum metals published in the last five years. No personalities are mentioned. References follow each chapter.

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PROKOF'EV, KONSTANTIN ALEKSANDROVICH

Abrazivy; posobie novomu rabochemu, Moskva, Oborongiz, 1943. 60p., illus. (Bibliotechka novogo rabochego aviatsionnoi promyshlennosti)

Title tr.: Abrasives; a manual for new workers.

TJ1296.P7

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

ALYAMOVSKIY, M.I., kandidat tekhnicheskikh nauk; PROKOF'YEV, K.A., kandidat tekhnicheskikh nauk.

Approximate method of determining the amplitude of natural vibrations in condenser tubes under the effect of aerodynamic forces. Sudostroenie 22 no.7:7-12 Jl '56. (MLRA 9:10)

(Vibration)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, K.A., kand. tekhn. nauk; CHERNOV, S.K., kand. tekhn. nauk.

Results of testing turbine blades for vibration in an operating turbine. Sudostroenie 24 no.10:22-25 O '58. (MIRA 11:12)
(Steam turbines--Testing)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PANCHENKO, Ivan Ivanovich; PROKOF'YEV, K.A., kand.tekhn.nauk, retsenzent; SHEMONAYEV, A.S., inzh., red.; VASIL'YEVA, V.P., red.izd-va; SHCHETININA, L.V., tekhn.red.

[Vibration resistance of turbine blades] Vibratsionnaia prochnost' lopatok turbin. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1959. 253 p. (MIRA 12:9)
(Blades--Vibration)

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E194/E484

AUTHORS: Prokof'yev, K.A. and Vidyakin, Yu.A., Candidates of Technical Sciences

TITLE: Methods of Determining the Damping Characteristics of Blade Materials and Blade Designs

PERIODICAL: Energomashinostroyeniye, 1960, No.10, pp.13-16

TEXT: This article describes a new experimental method of determining the decrements of vibrations of specimens clamped at one end. It indicates possible errors and means of reducing them. Blading vibration decrement studies are commonly made by tuning-fork methods or by making measurements of blades suspended on wires. Methods are required of assessing damping in bundles of blades allowing for clamping and shrouding. The influence of vibrations in the baseplate to which the blade is clamped are considered at some length. The test results plotted in Fig.1 relate to a blade mounted in this way, the straight line 1 corresponding to correct results and the curve 2 to the influence of base plate resonance. It is accordingly important to study the vibration properties of the baseplate and a method of determining the natural frequencies in three perpendicular directions is explained. Very often it is

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Methods of Determining the Damping Characteristics of Blade Materials and Blade Designs

necessary to know the amplitudes of the different natural frequencies of the base plate and this may be done by studying the stress at the root of a vibrating blade. Eq.(5) is derived for the stress amplitude at the blade root and from this, the amplitude of various oscillations in the block can be calculated:

$$\sigma = \sqrt{3}\sqrt{\frac{F\gamma}{g}} \cdot 2\pi fa \qquad (5)$$

where $\sqrt{3} = \sqrt{IF/w^2}$ for specimens of rectangular cross-section,
f - oscillation frequency of the specimen, c.p.s.,
I - moment of inertia of the cross-section, cm^4,
F - cross-section of the specimen, cm^2,
w - resistance moment of the specimen cross section, cm^3,
a - amplitude of the oscillation at the free end of the specimen, cm.

A typical vibration characteristic curve of a baseplate in the frequency range of 50 to 500 c/s is plotted in Fig.2 and it will be

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E194/E484

Methods of Determining the Damping Characteristics of Blade Materials and Blade Designs

seen that there are numerous peaks. Such peaks will, of course, greatly influence measurements of damping properties of blading but difficulties may be avoided by appropriate sample design to avoid the blade natural frequencies corresponding to the peaks in the characteristics of the baseplates. If, however, it is desired to measure blade vibration characteristics over a range of frequencies including natural frequencies of the baseplate, it is recommended to mount two blades on the baseplate and to vibrate them identically but with a phase displacement of 180°. It has been found that in this way the influence of the baseplate on damping tests can be completely overcome. A schematic diagram of the test equipment used is shown in Fig.3. Vibration is set up in the blade by an electro-magnet supplied by an audio-frequency generator. Vibration amplitudes are measured optically. It is difficult to use strain gauges on specimens vibrating at high frequencies and a method of measuring instead the strains set up in the baseplate is explained. It is considered that this is an accurate and convenient method. Other authors using conventional methods have

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Methods of Determining the Damping Characteristics of Blade Materials and Blade Designs

concluded that for the higher modes of vibration, the logarithmic decrement corresponding to a given maximum stress in the specimen is much less than at lower vibration modes. Tests were made of the damping properties of samples of carbon and 13% chromium steel for the first three modes of vibration. The samples were 315 mm long, with a cross-section of 4 x 30 mm and it was arranged that the blade natural frequencies did not coincide with those of the baseplates. The test results are plotted in Fig.4 and 5 in which the logarithmic decrements are related to the stress in the outer layers of the specimen roots. It will be seen that there is no tendency for the logarithmic decrement to decrease for the higher modes of the vibration. The method developed is recommended for tests on the damping properties of materials and designs. The influence of the baseplate can be accurately assessed so that errors in the tests are avoided. There are 5 figures and 2 Soviet references.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, K.A., kand.tekhn.nauk; VIDYAKIN, Yu.A., kand.tekhn.nauk

Dauping device for turbine blade vibrations. Sudostroenie 26 no.10:31-32 O'60. (MIRA 13:10)
(Marine turbines--Vibration)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, Konstantin Alekseyevich; SAMSONOV, Yuriy Artem'yevich; CHERNOV, Sergey Konstantinovich; MOISEYEV, A.A., prof., doktor tekhn.nauk, retsenzent; TRUNTAYEV, V.V., kand.tekhn.nauk, retsenzent; KOKICHEV, V.N., nauchnyy red.; VLASOVA, Z.V., red.; TSAL, R.K., tekhn.red.

[Vibrations in the parts of marine turbomachine units] Vibratsiia detalei sudovykh turboagregatov. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl. Vol.1. 1961. 550 p.

(MIRA 15:2)

(Marine turbines--Vibrations)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

S/114/62/000/003/003/005
E194/E155

26.1122

AUTHOR: Prokof'yev, K.A., Candidate of Technical Sciences

TITLE: On allowing for changes in the damping properties of blades that result from interaction between the blades and the turbine rotor

PERIODICAL: Energomashinostroyeniye, no.3, 1962, 23-26

TEXT: A previous work of the author gave methods of determining the damping properties of materials and blades due to internal friction. The decrement was determined from measurements of damped oscillations, i.e. under transient conditions. A further method is required for determining the decrement from measurements on steady-state oscillations. Comparisons between results obtained in the two ways is of particular value and in any case the damped vibration method cannot always be used. Accordingly a new method is proposed, based on measuring the amplitude values of a disturbing force during resonant oscillation of blades. In the equipment the free end of the blade is driven by a spring, and the relationship

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On allowing for changes in the ... S/114/62/000/003/003/005
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between the spring and blade characteristics that is necessary to obtain meaningful results is discussed. A diagram of the experimental equipment is shown in Fig.1. A sonic frequency generator (11) feeds a power amplifier (10) which supplies a solenoid (7) that drives the moving spring (6) attached to the end of the blade (5). Measuring telescopes (1) are provided to measure the displacements of the free end of the blade and of the solenoid core that drives the spring. Oscillations picked up by the strain gauge (9) at the bottom of the blade are fed through the amplifier (4) to the ratiometer (3). Motion of the solenoid core is recorded by the pick-up (8) and applied through the amplifier (2) to the ratiometer (3). Its readings indicate the ratio of the amplitude of the blade oscillation to that of the solenoid core, which is greatest when the phase displacement between them is $\pi/2$. The sonic generator frequency is altered until the blade is in resonance and the ratiometer gives maximum reading; the blade and core amplitudes are then measured with the telescopes. The power applied to the solenoid is then increased at the same frequency and further measurements

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taken to obtain the relationship between the disturbing force and the blade oscillation amplitude. The minimum decrement of oscillations for a given design of blades can be determined. In tests on turbines it is necessary to make measurements on at least 20% of the blades in order to determine maximum stresses. This is because of interaction between blade and rotor oscillations, and the nearer the frequency of blade oscillation to one of the rotor modes the greater the blade decrement. As the rotor resonance frequency curve is usually of complicated and peaked shape, small differences in blade frequency may result in considerable differences in damping. Consideration of blade damping when all blades in the stage have different natural frequencies is relatively simple, but usually there are groups of blades in a stage which are of identical natural frequency and decrement if measurements are made with the rotor stationary. However, if measurements are made with the rotor moving the dynamic stresses are the same in all blades only if their resonance oscillations are in phase with one another. The greatest difference in dynamic stresses is obtained when

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some of the blades oscillate in one phase and one blade in the group is displaced in phase by $\pi/2$, when this blade has a lower decrement than the others. Methods are not available for calculating all the natural frequencies and modes of oscillation of the rotor or calculating the damping of blades as function of oscillation phase and accordingly experimental determinations are required. The experimental procedure is as follows. The influence of the bond between the blade and rotor on the decrement of a single blade in a bundle is first determined. For this purpose all blades in the stage are wedged, except the blade being studied, which is left free. Measurements are then made of the damping of groups of blade of the same natural frequency. The decrement is measured at resonance because the damped oscillation method cannot be used here. The spring drive method described above gives good results but for simultaneous measurements on a number of blades it is simpler to use a method proposed by A.S. Shemonayev which is based on measurement of the amplitude values of disturbing force applied to the free end of the blades. The experimental procedure is briefly described. Test results

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are quoted for the damping of three blades of the same natural frequency. Resonant oscillations of the blades are such that two of them are in phase and the third is displaced by $\pi/2$. The former have much greater decrement than the latter. It is concluded that if a turbine runs at constant speed the rotor blading should be arranged in such a way that blades of the same natural frequency are in phase at resonance.
There are 4 figures.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, K.A., kand. tekhn. nauk; VIDYAKIN, Yu.A., kand. tekhn. nauk

Determination of structural dimensions of a flexible coupling for damping tangential vibrations of blades. Energomashinostroenie 9 no.7:14-16 Jl '63. (MIRA 16:7)

(Blades—Vibration) (Damping (Mechanics))

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L 07565-67 EWT(m)/EWP(w)/EWP(v)/EWP(t)/ETI/EWP(k) IJP(c) JD/WW/EM/GD

ACC NR: AT6029369 (N) SOURCE CODE: UR/0000/66/000/000/0243/0248

AUTHOR: Prokof'yev, K. A. (Leningrad); Yepanechnikov, M. M. (Leningrad); Meyerson, I. L. (Leningrad)

ORG: none

52
B+1

TITLE: Damping properties of blades with individual tail-pieces of the "pine-tree" type

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Rasseyaniye energii pri kolebaniyakh uprugikh sistem (Energy dissipation during vibrations of elastic systems). Kiev, Naukova dumka, 1966, 243-248

TOPIC TAGS: damping analysis, turbine blade, turbine design

ABSTRACT: The experimental apparatus consisted of a one-stage turbine, hooked up with a direct current electric motor. The air was supplied by a compressor. The article gives a detailed diagram of the experimental apparatus. For experimental determination of the logarithmic decrement from the oscillograms of the damped vibrations the following relationship was used:

$$\delta_{\substack{exp \\ m}} = \frac{1}{z} \ln \frac{a_k}{a_{k+z}},$$

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ACC NR: AT6029369

where δ_m is the mean logarithmic decrement of the vibrations for the period of time in the course of which the blade completes z vibrations, at the same time as the amplitude of the vibrations changes from the value a_k to a_{k+z}. The values of the amplitudes a_k and a_{k+z} were determined directly from the recorded oscillograms. The experimental results are shown in graphic form. It was established that 85% of the energy dissipation is due to friction in the tail-piece joint, 7% to losses in the material of the sample, and the remaining 8% to aerodynamic damping and energy losses in the rotor disk. Orig. art. has: 3 figures.

SUB CODE: 10/20/21/ SUBM DATE: 22Feb66

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

ACC NR: AM6029190 (N) Monograph UR/

Prokof'yev, Konstantin Alekseyevich; Samonov, Yuriy Artem'yevich; Chernov, Sergey Konstantinovich

Vibration of marine turbo-unit components (Vibratsiya detaley sudovykh turboagregatov) vol. 2. Leningrad, Izd-vo "Sudostroyeniye," 1966. 291 p. illus., biblio., tables. 1,400 copies printed.

TOPIC TAGS: vibration, machine vibration, shaft vibration, torsional vibration, vibration analysis

PURPOSE AND COVERAGE: Modern methods are presented for calculating and experimentally investigating the vibrations of marine turbounit components. The vibration of disks, rotors, condenser tubing, piping systems, and propeller shafts is also considered. The book is intended for engineering and technical personnel in factories, design departments, and scientific-research institutitions. It may also be used as a textbook for aspirants and students in shipbuilding schools of higher education.

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ACC NR: AM6029190

Part One. Vibration of Disks and Rotors of Marine Turbines -- 5

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Ch. II. Transverse vibrations of spinning turbine rotors -- 50

Part Two. Vibration of condenser tubing, piping systems and propeller shafts -- 113

Ch. III. Vibration of condenser tubing -- 113
Ch. IV. Vibration of marine piping systems -- 172
Ch. V. Calculating the transverse vibrations of marine shafting - shafting -- 224
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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

KISELEV, Vasiliy Aleksandrovich, prof., doktor tekhn.nauk; DARKOV, A.V., prof., doktor tekhn.nauk, retsenzent; PROKOF'YEV, K.N., nauchnyy red.; BORODINA, I.S., red.izd-va; OSENKO, L.M., tekhn.red.

[Structural mechanics] Stroitel'naia mekhanika. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1960. 559 p. (MIRA 13:12)

(Structures, Theory of)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

KACHURINA, N.Ya.; PROKOF'YEV, K.V.; KAZANSKIY, V.L.; TRUPANOVA, A.G.

Production of trimellitic acid by pseudocumene oxidation. Neftekhimiia 5 no.6:880-886 N-D '65. (MIRA 19:2)

1. Kuybyshevskiy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti i Novokuybyshevskoye neftetekhnologicheskoye otdeleniye. Submitted Oct. 20, 1964.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

KACHURINA, N.Ya.; PROKOF'YEV, K.V.; TRUPANOVA, A.G.

Isolation of aromatic hydrocarbons C_9 from high-boiling fractions formed in the process of xylene production. Nefteper. i neftekhim. no.5:32-34 '65. (MIRA 18:7)

1. Kuybyshevskiy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, Ivan Iosifovich. prof.: ANISIMOV, Aleksey Petrovich, kand. tekhn. nauk; BRONSHTEYN, L.A., prof., retsenzent; LIV'YANT, Ya.A., red.

[Economics of automotive transportation] Ekonomika avtomobil'nogo transporta. Moskva, Transport, 1965. 311 p. (MIRA 18:7)

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PROKOF'YEV, L.

For the clubs' championship. Voen.znan.31 no.8:7 Ag'55.
(Shooting contests) (MLRA 8:12)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

AFANASENKO, Vasiliy Ivanovich; SEROBABA, Vasiliy Fedorovich; FOTIYEV, M.M., nauchnyy red.; PROKOF'YEV, L.G., red.; NESMYSLOVA, L.M., tekhn. red.

[On the job training of electricians in the maintenance of automatic control equipment and general stationary installations in mines] Proizvodstvennoe obuchenie élektroslesarei po obsluzhivaniiu obshcheshakhtnykh statsionarnykh ustanovok i sredstv avtomatizatsii; metodicheskoe posobie. Moskva, Proftekhizdat, 1962. 87 p. (MIRA 16:6)
(Mining machinery--Maintenance and repair)

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PROKOFYEV, L. M.

5646. PROKOFYEV, L. M. Organizatsiya i Planirovaniye Kolkhoznykh Finansov. Kiyev, Ukr. Filial Vsuk, 1954. 192 s 20Sm. (Glav. Upr. Podgotovki Kadrov M-Va Sel'skogo Khozyaystva SSSR. Vsesoyuz. Zaoch. Uchetnyye Kursy VSuk). 10,000 Ekz. Besp.— Na Ukr. Yaz.—(55-191) 631.16:336.1k

SO; Knizhnaya, Letopis, Vol. 1, 1955

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, M.

Photographing insects and acarians. Zashch. rast. ot vred. i bol. 10 no.9:38-39 '65. (MIRA 18:11)

1. Zaveduyushchiy laboratoriyey zashchity rasteniy Altayskoy opytnoy stantsii sadovodstva.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, M.

Use of extraxts and decoctions. Zashch. rast. ot vred. i bol. 10 no.3:38 '65. (MIRA 19:1)

1. Zaveduyushchiy laboratoriyey zashchity rasteniy Altayskoy opytnoy stantsii sadovodstva.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, M., master proizvodstvennogo obucheniya

Personnel for the Republic of Mali. Prof.-tekh. obr. 22 no.10:46 O '65. (MIRA 18:10)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, M.F., aspirant

Planning scientific research on the basis of scientific and technological information. NTI no.4:7 '63. (MIRA 16:10)

1. Leningradskiy finansovo-ekonomicheskiy institut.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

USSR / Cultivation Plants. Fodders. M-4

Abs Jour: Ref Zhur-Biol., No 6, 1958, 25069

Author : Prokof'yev, M.A.
Inst : The Southern S.R.I. of Hydrotechnics and Melioration
Title : An Experiment in Cultivating Perennial Grasses with Irrigation Under the Conditions of the Don River Floodlands

Orig Pub: Sb. tr. Yuzhnogo n.-i. in-ta gidrotekhn. i melior., 1956, vyp. 4, 315-322

Abstract: Experiments were made by the Southern Scientific Research Institute of Hydrotechnics and Melioration (at N vocher:assk) in 1949-1952 on the cultivation of perennial grasses in the floodland of the Don River, below Tsimiyanskiy the Hydroelectric Development. When the floodlands were washed with cold water (that is, with local flow water as a

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USSR / Cultivated Plants. Fodders. M-4

Abs Jour: Ref Zhur-Biol., No 6, 1958, 25069

Abstract: result of the spring thawing) for 14-18 days, the following survived quite well: Slavyanskaya variety alfalfa, hybrid No. 23 alfalfa, the yellow floodland lucerne, bird's foot trefoil, meadow timothy, smooth brome, meadow fescue, and southern couchgrass, wheat-grass withstood flooding for 8 days. Red clover, Italian ryegrass and tall oatgrass were completely wiped out. Flooding the bottomland with tepid water (through inundation of the Don) for the course of 5-7 days left the alfalfa mentioned above and bird's foot trefoil unscathed. Red clover perished entirely. In the presence of longer flooding with warm water all the legumes were destroyed. Timothy, smooth brome, bird's foot trefoil withstood warm water flooding up to 14 days, slender wheat grass Agropyrum tenerum and wheat

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

USSR / Cultivation Plants. Fodders. M-4

Abs Jour: Ref Zhur-Biol., No 6, 1958, 25069

Abstract: grasses generally up to 5 days. With warm water flooding up to 12-14 days, sowing should be limited to the grasses-smooth brome, bird's foot trefoil and meadow timothy. On those plots surrounded by embankments and moistened through the higher ground water levels when the bottomlands are flooded, the best components in the grass mixtures are Slavyanskaya alfalfa, hybrid alfalfa, meadow fescue, Italian ryegrass, tall oatgrass, the slender wheatgrass Agropyrum tenerum. When floods are not present, one must water before hay mowing; if there are floods, the first watering should be made after the first or second mowing. To get a seed yield when there are no floods one to two irrigations are proper, with flooding, a single irrigation is applied after the seed harvest in order to cut the hay. -- V. V. Koperzhinskiy

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

IZMAYLOV, I.V.; PROKOF'YEV, M.A.

Distribution of siskins (Carduelis spinus) in Buryat-Mongolia. Kraeved.sbor. no.4:136-138 '59. (MIRA 13:7)

(Buryat-Mongolia—Finches)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, M.A., nauchnyy sotrudnik

The common red spider Tetranychus telarius in orchards of Siberia. Zashch. rast. ot vred. i bol. 6 no.10:58 O '61. (MIRA 16:6)

1. Altayskaya plodovo-yagodnaya stantsiya.
(Siberia--Fruit--Diseases and pests)
(Siberia--Red spider--Extermination)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, M.A.

Azure-winged magpies in the Buryat Fruit and Berry Experiment Station. Ornitologiia no.4:333-335 '62. (MIRA 16:4)
(Ulan-Ude—Magpies)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, M.A.

Cases of poisoning of birds by poisonous chemicals at the fruit and berry stations of Siberia. Ornitologiia no.5:322-323 '62. (MIRA 16:2)

(Siberia--Birds) (DDT (Insecticide))

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, M.A.

Bullfinches in Siberia. Priroda 51 no.2:119 F '62. (MIRA 15:2)

1. Altayskaya plodovo-yagodnaya optnaya stantsiya, Barnaul.
(Siberia--Grosbeaks)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

ALEKSANDROV, Yu.P.; PROKOF'YEV, M.A.

Biological detachment of the Altai Expedition. Zashch. rast. ot vred. i bol. 8 no.2:58 F '63. (MIRA 16:7)

1. Nachal'nik Altayskoy ekspeditsii (for Aleksandrov). 2. Starshiy agronom biologicheskogo otryada pri Altayskoy ekspeditsii (for Prokof'yev).
(Altai Territory--Insects, Injurious and beneficial--Biological control) (Trichogramma)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, M.A., nauchnyy sotrudnik

Pests of sea buckthorn. Zashch. rast. ot vred. i bol. 8 no.11:35-37 N '63. (MIRA 17:3)

1. Altayskaya opytnaya stantsiya sadovodstva.

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ABRAMOVA, Z.V., kand.sel'skokhoz.nauk; SHUROVENKOV, Yu.B.; PONOMARCHUK, V.I. (Uzhgorod); KHODYREV, N.G., agronom (Ust'-Labinskiy rayon, Krasnodarskogo kraya); KASUMOV, V.G., nauchnyy sotrudnik; PROKOF'YEV, M.A.; SIZOVA, G.S.

Brief information. Zashch. rast. ot vred. i bol. 9 no. 4:48-50 '64. (MIRA 17:5)

1. Leningradskiy sel'skokhozyaystvennyy institut (for Abramova).
2. Zaveduyushchiy laboratoriyey zashchity rasteniy Kurganskoy oblastnoy sel'skokhozyaystvennoy opytnoy stantsii (for Shurovenkov).
3. Azerbaydzhanskiy institut zashchity rasteniy (for Kasumov).
4. Altayskaya opytnaya stantsiya sadovodstva (for Prokof'yev, Sizova).

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NESMEYANOVA, M.A.; BOGDANOV, A.A.; PROKOF'YEV, M.A.

Alkaline phosphatase linked with ribosomes in Escherichia coli. Biokhimiia 30 no. 3:463-470 My-Je '65 (MIRA 19:1)

1. Laboratoriya khimii belka khimicheskogo fakul'teta Gosudarstvennogo universiteta imeni Lomonosova, Moskva.

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PITKYANEN, I.G.; PROKOF'YEV, M.I.

Reaction of the swine uterus to the indtroduction of diluents and diluted sperma. Zhur. ob. biol. 24 no.3: 202-208 My-Je'63. (MIRA 16:8)

1. Pushkinskaya nauchno-issledovatel'skaya laboratoriya razvedeniya sel'skokhozyaystvennykh zhivotnykh.
(ARTIFICIAL INSEMINATION) (ABSORPTION (PHYSIOLOGY))

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, M. I., Cand of Agric Sci -- (diss) "Historical and Contemporary Status of Rice Growing Attempts in Russia and the USSR," Leningrad, 1959, 22 pp Leningrad Agricultural Institute) (KL, 4-60, 121)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, N.

Remarks on a book about control and measuring apparatus ("Operation and maintenance of measuring apparatus and automatic regulators in petroleum refineries." A.B.Bakutkin, B.S.Semenov. Reviewed by N.Prokof'ev). Neft.khoz. 32 no.12:90-91 D'54 (MLRA 8:2)
(Bakutkin, A.B.)(Semenov, B.S.)(Petroleum--Refining)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001343210009-8

PROKOF'YEV, N.

"Handbook on the establishment of norms for loading and unloading operations." Reviewed by N.Prokof'ev. Rech. transp. 21 no.2:64 F '62. (MIRA 15:3)

1. Starshiy instruktor otdela truda i zarplaty tsentral'nogo komiteta profsoyuza rabochikh morskogo i rechnogo flota.
(Cargo handling--Standards)

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(Bakutkin, A.B.)(Semenov, B.S.)(Petroleum--Refining)

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Subject : USSR/Engineering

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Author : Prokof'yev, N.

Title : Comments on a book on control and measuring instruments.

Periodical : Neft. khoz., v.32, #12, 90-91, D 1954

Abstract : Discussion of the book Service and Repairs of Measuring Instruments and Automatic Regulators in Oil Fields by Bakutkin, A. B. and Semenov, B. S.

Institution: None

Submitted : No date

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