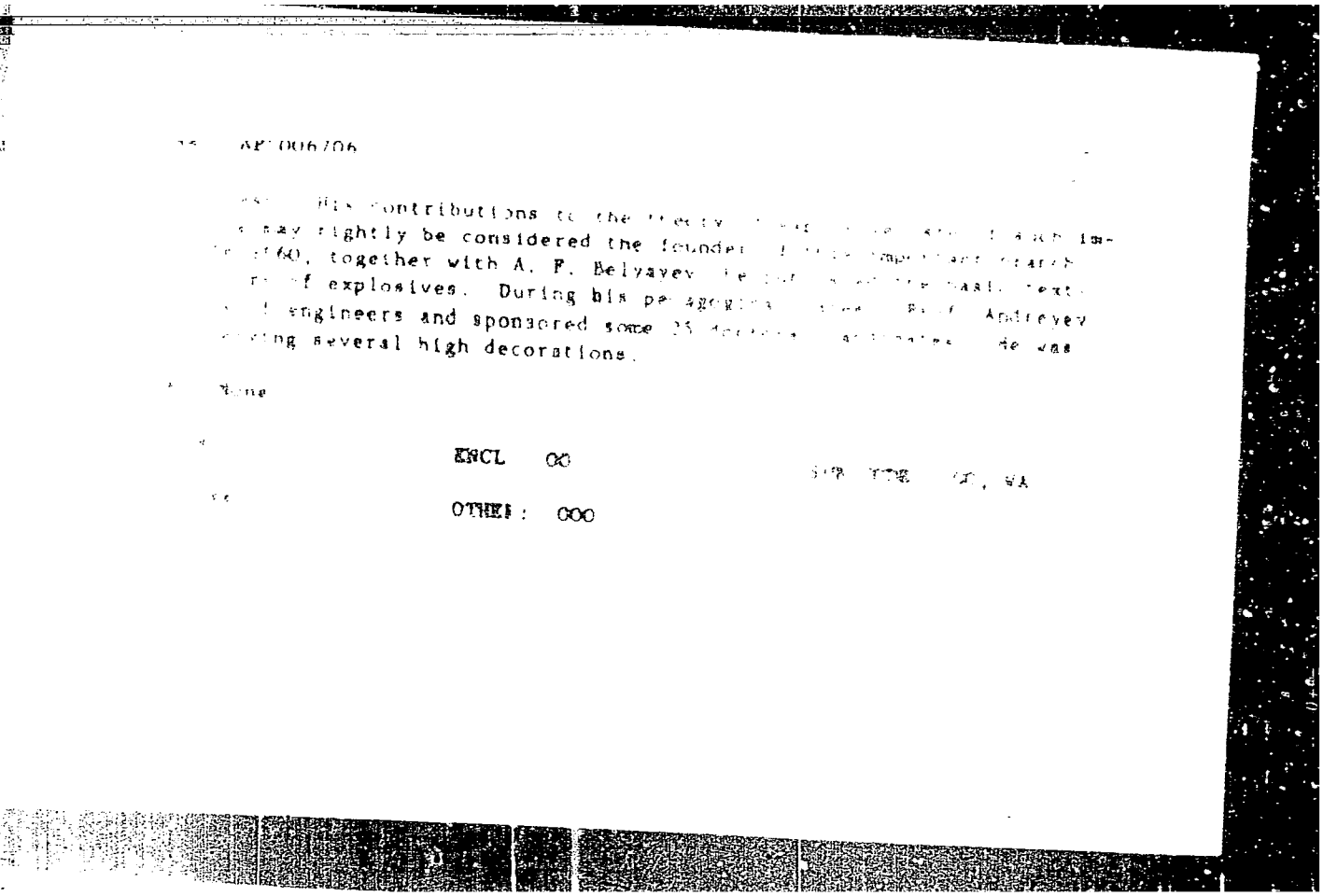

AP 006706

His contributions to the [illegible] may rightly be considered the founder [illegible] (60), together with A. F. Belyayev [illegible] of explosives. During his pe[illegible] engineers and sponsored some 25 [illegible] ing several high decorations.

[illegible]

ENCL 00

OTHER: 000

KHARITON, Yu.B.; KONDRAT'YEV, V.N.; BOROVIK-P)MANOV, A.S.; ZAVARITSKIY, N.V.; MALKOV, M.P.; KHAYKIN, M.S.; SHARVIN, Yu.V.

Aleksandr Iosifovich Shal'nikov; on his 60th birthday. Usp. fiz. nauk 87 no.1:171-172 S '65. (MIRA 18:9)

USSR/Physics - Thermodynamics, criticism FD-534

Card 1/1 Pub. 153-24/28

Author : Kirillin, V. A., and Rubinshteyn, Ya. M.

Title : Concerning an ignorant article on dynamics

Periodical : Zhur tekh. fiz 24, 929-932

Abstract : Claims that Ye. M Kharitonchik's article "Processes and cycles with decreasing entropy and their significance for natural science and technology" is essentially erroneous and can only confuse the inexperienced reader. This article appeared in the Sbornik trudov po zemledel'cheskoy mekhanike [Symposium of work on agricultureal mechanics], published 1952 under the editorship of Acad. V. A. Zheleznovskiy, of All-Union Academy of Agricultural Sciences imeni V. I. Lenin.

Institution :

Submitted : September 18, 1953

CHERNOVSKIY, Yu.I.; BUZULUKOV, P.A., kandidat tekhnicheskikh nauk, retsenzent; KHARITONCHIK, Ye.M., professor, retsenzent; NAPALKOV, G.I. inzhener, retsenzent; KUZ'MOV, N.T., inzhener, redaktor; DUGINA, N.A., tekhnicheskiy redaktor

[An aid to tractor drivers; use of tractors in agricultural operations] V pomoshch' traktoristu; ispol'zovanie traktorov na s.-kh. rabotakh. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 327 p. [Microfilm] (MLRA 8:3)
(Tractors)

KHARITONCHIK, Ye.M.

KIRILLIN, V.A.; RUBINSHTEYN, Ya.M.

On an illiterate article about thermodynamics("Processes and cycles of decreasing entropy and their significance in natural sciences and technology." E.M.Kharitonchik. Reviewed by V.A.Kirillin, IA.M.Rubinshtein). Zhur.tekh.fiz. 24 no.5:929-932 My '54.
(Thermodynamics)
(MLRA 7:7)

POLKANOV, Ivan Petrovich; SERGEYEV, M.P., prof., red.; KHARITONCHIK, Ye.M., prof., retsenzent; DUGINA, N.A., tekhn.red.

[Theory and analysis of machine-tractor units] Teoriia i raschet mashinno-traktornykh agregatov. Pod red. M.P. Sergeeva. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1958. 211 p. (MIRA 12:2)

(Agricultural machinery) (Tractors)

CHKREMOVSKIY, Yuriy Ivanovich; SAYAPIN, V.I., kand.tekhn.nauk, retsenzent; KHARITONCHIK, Ya.M., prof., red.; KUZ'MOV, N.T., inzh., red.; YERMAKOV, N.P., tekhn.red.

[The S-80 and S-100 tractors; working principle and operation] Traktory S-80 i S-100; ustroistvo i ekspluatatsiia. Izd.5., perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1959. 439 p. (MIRA 12:12)
(Tractors)

CHEREMOVSKIY, Yuriy Ivanovich; SIDOROV, Fedor Georgiyevich; MIKHEYEV, Nikolay Zakharovich; PICHAK, Fedor Ivanovich, kand.tekhn.nauk; ALEKSEYEV, Georgiy Petrovich; KHARITONCHIK, Ye.M., prof., retsenzent; DUGINA, N.A., tekhn.red.

[Tractor operator's manual] Posobie traktoristu. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 512 p. (MIRA 12:6)

(Tractors)

KHARITONCHIK, Ye.M.

Dissertations. Mekh. i elek. sets. sel'khoz. 17 no.1:56 and 64 '59. (MIRA 12:1)
(Bibliography--Agricultural machinery)

KHARITONCHIK, Ye.M.

Dissertations. Mekh. i elek.sots.sel'khoz. 17 no.3:53 '59. (MIRA 12:8)
(Agricultural machinery)

KHARITONCHUK, Ye.P., [illegible]

Optimal pe[illegible] operating at increased speeds. Mekh. i elektr.sots.sel'khoz. 17 no.4:1-6 '59. (MIRA 13:11)

1. Chelyabinskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.

(Tractors)

CHEREMOVSKIY, Yuriy Ivanovich; SIDOROV, Fedor Georgiyevich; MIKHAYEV, Nikolay Zakharovich; PICHAK, Fedor Ivanovich; ALEKSEYEV, Georgiy Petrovich; KHARITONCHIK, Ye.M., prof., retsenzent; CHERMENNOV, V.M., inzh., retsenzent; RYABCHENKO, P.G., inzh., retsenzent; KALOSHIN, A.I., inzh., retsenzent; PICHAK, F.I., kand.tekhn.nauk, red.; YERMAKOV, N.P., tekhn.red.

[Manual for tractor drivers] Posobie traktoristu. Izd.2., perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 592 p. (MIRA 13:12)

(Tractors)

KHARITONCHIK, Ye.M., prof.

Improvement of tractor transmissions. Trakt. i sel'khozmash. 31 no.10:4-7 O '61. (MIRA 14:12)

1. Chelyabinskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.
(Tractors—Transmission devices)

UL'MAN, I.Ye., dots., kand. tekhn. nauk, otv. red.; KHARITONCHIK, Ya.M., prof., otv. za vyp.; Prinimali uchastiye: LEBEDEV, S.P., prof., doktor tekhn. nauk, red.; SERGEYEV, M.P., prof., red.; KUZNETSOVA, A.V., doktor sel'khoz. nauk, red.; MELAMED, V.I., dots., red.; DEULIN, N.P., dots., red.; SOKOLOV, B.F., dots., red.; ROMALIS, B.L., dots., red.; RASKATOVA, Ye.A., dots., red.; TONN, G.A., kand. tekhn. nauk, red.; PANUS, Yu.V., st. prepod., red.; KUBYSHEV, V.A., st. prepod., red.

[Materials of the Jubilee Scientific Conference of the Chelyabinsk Institute of the Mechanization and Electrification of Agriculture] Materialy IUbileinoi nauchnoi konferentsii. Cheliabinsk. Pt.1.[Investigation of the elements of design and the system of agricultural machinery] Issledovanie elementov konstruktsii i sistemy mashin v sel'skokhoziaistvennom proizvodstve. 1962. 122 p. Pt.2.[Improvement in the design of machinery and the means for prolonging their sevice life] Sovershenstvovanie konstruktsii mashin i puti uvelicheniia ikh dolgovechnosti. 1962. 118 p. Pt.3.[New methods for using electric power in mobile units and technological processes in agriculture] Novye sposoby ispol'zovaniia elektricheskoi energii v mobil'nykh agregatakh i tekhnologicheskikh protsessakh sel'skokhoziaistvennogo proizvodstva. 1962. 44 p. (MIRA 16:8)

1. Chelyabinsk. Institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.
(Agricultural machinery) (Electricity in agriculture)

SPIRIDONOV, K.M., inzh.; KHARITONCHIK, Ye.M., kand.tekhn.nauk

Study of the rigidity of the transmission system of a 6-ton class tractor. Trakt.i sel'khozmash. no.8:5-7 Ag '62. (MIRA 15:8)

1. Chelyabinskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.

(Tractors--Transmission devices)

KHARITONCHIK, Ye.M., prof.; KYCHEV, V.N., inzh.

Investigating a hydropneumatic starter for tractor diesel engines. Trakt. i sel'khozmash. 33 no.6:9-13 Je '63. (MIRA 16:7)

1. Chelyabinskiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.

(Tractors—Starting devices)
(Diesel engines)

CITED SOURCE: Tr. Chelyab. in-ta mekhaniz. i elektrifik. s. kh., vyp. 16. 1963.

KHARITONENKO, D.

"Perfection of New Machine Tools" Stanki i Instrument, 12, No. 6, 1941.

Report U-1503, 4 Oct. 1951

KHARITONENKO, D. S., Engineer

"Honing of Steel Cylinders," Stanki i Instrument, 10, No 9, 1939, ENDS

Report U-1505, 4 Oct 1951.

KHARITONENKO,F.D.

("Practice in the Control of Infectious Diseases" from material received by the editor)

6. Extract: "Duration of Immunity from STI Vaccine in Reindeers" by Science Assistant F.D.KHARITONENKO (Izhma-Pechora NIVOS). The author presents the results of testing the duration of immunity in reindeer inoculated with STI vaccine in 1951-1952.

Mass inoculations of reindeer with STI vaccine were first carried out in March and June 1943 in Izhemskiy Rayon,Komi ASSR. During this time animals that were destined for immunity tests were also inoculated. The test animals were given 1-2-5 and 10 milliliter doses of STI vaccine. Controlled infection of the test animals was effected in February and March 1944. The committee observed the presence of a stable immunity 8 and 11 months after vaccination day.

Likewise in 1944, at the Alekhard NIVOS, after testing the immunity of 24 reindeer inoculated with STI vaccine, the conclusion was reached: "STI vaccine confers immunity against malignant anthrax in reindeer for 162 days.

In 1951-1952 final experiments were made on this same problem. The experimental group was made up of animals inoculated with STI vaccine during the second half of June 1951. The vaccine doses were 1-1.5-2 milliliters. After injection a good reaction was obtained. Page 38

7. Extract: In conclusion the author recommends, "In view of the fact that there was almost no reaction to the vaccine at the time of the mass inoculations in June, we feel it expedient to test immunity in such groups of animals in order to have exhaustive data on the effect of STI vaccine doses on the duration of immunity." (Veterinariya;No.11,1952)

SO: Report U-5638;10 March 1954;p.56;

KHARITONENKO, G., insh.

Work organization for shaft bottom crosscuts. Mast. ugl. 7 no.2: 20 F '58. (MIRA 11:3)
(Coal mines and mining)

ZARING, K.L.; KHARITONENKO, G.P.

Characterisics of the deformation of α-iron during sudden changes in the speed of plastic tension. Fiz. met. i metalloved. 17 no.1:100-104 Ja '64. (MIRA 17:2)

1. Sibirskiy fiziko-tekhnicheskiy institut.

GRIGORYAN, G.L.; KHARITONENKOV, I.G.; TYKHONENKO, T.I.; KALMANSON, A.E.

Electron paramagnetic resonance method for studying the interrelationship between semiquinone-type free radicals and native and denaturated DNA. Dokl. AN SSSR 165 no.1:224-226 N '65.
(MIRA 18:10)

1. Institut virusologii im. D.I.Ivanovskogo AMN SSSR i Moskovskiy gosudarstvennyy universitet. Submitted April 26, 1965.

GRIGOR'YEV, A.G.; KALMANSON, A.E.; KVARITONENKOV, I.G.; BEYNENFEL'D, L.A.

Study of free radicals in biological objects generated during the course of enzymatic reactions by the electron paramagnetic resonance method. Biofizika 9 no. 1:18-24 '64. (MIRA 17:7)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.

KALMANSON, A.E.; TROFIMENKO, V.I.; CHERNAKOV, V.M.; KHARITONENKOV, I.G.

Nature and role of free radical in biological [illegible]. Dokl. AN SSSR 161 no.5:1212-1215 Ap '65. (MIRA 18:5)

1. Institut virusologii im. D. I. Ivanovskogo AN SSSR. Submitted January 15, 1965.

KHARITONENKO, M.I., mladshiy nauchnyy sotrudnik

The KSM-35 ditch and well digging machine. Zashch.rast.ot vred. i bol. 5 no.3:9-11 Mr '60. (MIRA 16:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii sel'skogo khozyaystva.
(Excavating machinery) (Weevils--Extermination)

KHARITONENKO, N.

Automobile transport on liquid gas. Tyl i snab. Sov. Voor. Sil 21 no.10:89-90 O '61. (MIRA 15:1)
(Liquefied petroleum gas)

KHARITONENKO, N.V.

Testing road materials with the aid of supersonics. Avt. dor. 19 no.7:33 Jl '56. (MLRA 9:10)

(Road materials--Testing) (Ultrasonic testing)

KHARITONENKO, N.V.

Efficiency workers and innovators in the field of street and bridge maintenance. Gor. khoz. Mosk. 30 no.8:32-35 Ag '56. (MLRA 9:10)

(Moscow--Roads--Maintenance and repair)

KHARITONENKO, N.V.

KHARITONENKO, N.V.

Introduction of minor machinery on road sections which are in use. (MLRA 10:9)
Gor.khoz.Mosk. 31 no.9:41-43 S '57.
(Road machinery)

KHARITONENKO, N.V.

Organizing the trucking away of refuse. Gor.khoz.Mosk. 33 no.9:41 S '59. (MIRA 12:11)

(Moscow--Refuse and refuse disposal)

Kharitonenko, P. I.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress * (Cont.) Moscow Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.

Molchanov, N. N. (Moscow). Application of the Theory of Continuous Transformation Groups for the Solution of Ordinary Differential Equation. 60-61

Myshkis, A. D. (Minsk), Abolinya, V. E. (Riga), Zhdanovich, V. F. (Minsk); Kostyukovich, Ye. Kh. (Minsk); Lepin, A. Ye. (Minsk), Kharitonenko, P. I. (Minsk) and Shlopak, A. S. (Moscow). Mixed Problem for Linear Hyperbolic Systems in a Plane. 61-63

Neymark, Yu. I. (Gor'kiy). On the Connections Between the Stability of Closed and Open Dynamic Systems. 63

Olevskiy, M. N. (Moscow). On the Cauchy Problem of the Generalized Euler-Poisson-Darboux Equation. 63-64

There is 1 reference, which is a translation into Russian.

Panayoti, B. N. (Baku). Cauchy Problem of Partial Differential Equations With Small Parameters. 64-65

Card 19/80

*

Mixed problem for a certain differential equation encountered in the theory of variations. Sbor. nauch. rab. Bel. politekh. inst. no.60: 28-33 '57. (MIRA 13:2)

(Differential equations) (Calculus of variations)

KHARITONENKO, P.I.

One mixed problem. Sbor. nauch. rab..Bel. politekh. inst. no.60:34-47 '57. (MIRA 13:2)
(Differential equations)

KHARITONENKO, P.I.

Method of nets for an approximate solution to a boundary value problem in the theory of variations. Sbor. nauch. rab. Bel. politekh. inst. no.60:48-55 '57. (MIRA 13:2)
(Theory of variations)

KHARITONENKO, P.I.

24(0) PHASE I BOOK EXPLOITATION SOV/3371

Minsk. Belorusskiy politicheskiy institut

Sbornik nauchnykh rabot. Vyp. 60: Seriya fiziko-matematicheskaya (Collected Scientific Works. Nr 60: Physics and Mathematics Series) Minsk, 1957. 167. Errata slip inserted. 1,000 copies printed.

Sponsoring Agency: Ministerstvo vysshego obrazovaniya SSSR.

Tech. Ed.: S. Kh. Pesina; Editorial Board: N. A. Bessonov, Docent, Candidate of Physical and Mathematical Sciences (Resp. Ed.); N. V. Popova, Docent, Candidate of Physical and Mathematical Sciences; N. V. Afanas'yev, Docent, Candidate of Physical and Mathematical Sciences; and L. I. Chesnokov, Docent, Candidate of Physical and Mathematical Sciences (Resp. Ed. for this Number).

PURPOSE: This book is intended for students of the physical and mathematical sciences.

Card 1/ 5

Collected Scientific Works. (Cont'd) SOV/3371

COVERAGE: This is a collection of 19 articles on mathematics, physics, and theoretical mechanics, prepared by members of the Belorusskiy politekhnicheskiy institut imeni I. V. Stalina (Belorussian Polytechnic Institute imeni I. V. Stalin) and other scientists. The mathematical material includes an analysis of problems relating to the theory of univalent functions of a complex variable, the boundary problem in the theory of vibrations, and a nomogram for the run-off of spring floods. The experimental works include studies of the electroerosion process, crystallization from melts, abrasive polishing of crystals, stress distribution in the frame of an automobile, and the elastic properties of a body during its plastic deformation. References follow the individual articles.

TABLE OF CONTENTS:

Card 2/5

Country : USSR M-8
CATEGORY :

ABS. JOUR. : RZBiol., No. 14, 1959, No. 87277

AUTHOR : Kharitonov, A. F.
INST. :
TITLE : Viniculture and Wine-Making in the Albanian People's Republic.

ORIG. PUB. : Vinodeliye i vinogradarstvo SSSR, 1958, No 2, 36-38
ABSTRACT : No abstract

CARD: 1/1

VORONIN, V.G.; KHARITONOV, A.F.; Prinimala uchastiye ORLOVA, L.I.

Investigating the rigidity of single-stand hydraulic presses. Kuz.-shtam. proizv. 5 no.12:16-19 D '63. (MIRA 17:1)

1. Zaveduyushchaya izmeritel'noy laboratoriyey Orenburgskogo zavoda "Gidropress" (for Orlova).

L 47121-66 EWT(d)/EWP(1) IJP(c) BB/GG
ACC NR: AR6016026 SOURCE CODE: UR/0271/66/000/001/B039/B039

AUTHOR: Semenov, Yu. I.; Kharitonov, A. G.; Savel'yev, A. V.; Prozorov, Yu. P.

12
B

TITLE: Analysis of analog—code information converters

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 1B278

REF SOURCE: Novyye sredstva avtomatiz. dlya ugol'n. prom-sti. Vyp. 2. Kiyev, Tekhnika, 1964, 192-202

TOPIC TAGS: converter circuit, converter, analog converter

16

ABSTRACT: After a brief review of existing types of analog—code converters a converter circuit is described which operates according to the principle of comparing the imput voltage with the standard sawtoothed variable voltage. The dynamic balance method is applied in the circuit. Single elements are described and the converter's precision is analyzed. Orig. art. has: 6 figures. Bibliography of 4 titles. [Translation of abstract] [NT]

SUB CODE: 09/

LS
Card 1/1 UDC: 681.142.621

L 47124-66 EWT(d)/EWP(1) IJP(c) BB/GG
ACC NR: AR6016010 SOURCE CODE: UR/0271/66/000/001/A008/A008

AUTHOR: Semenov, Yu. I.; Goryachikh, G. A.; Kharitonov, A. G.

16
B

TITLE: Semiconductor shift register

16

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 1A49

REF SOURCE: Sb. Novyye sredstva avtomatiz. dlya ugol'n. prom-sti. Vyp. 2. Kiyev, Tekhnika, 1964, 209-214

TOPIC TAGS: semiconductor device, shift register, time relay, semiconductor triode

ABSTRACT: The proposed shift register is made according to a closed circuit with a time relay without requiring external propelled pulses. The shift register is used in equipment where the cophased motion of distributor is not needed, for example, in centralized control systems. The specific feature of register elements, assembled with a P16 type semiconductor triode is the high stability of time lag which is achieved by special switching of the capacitor. The time lag is ~100 sec with fluctuations within 2% for changes in input voltage from +10 to -20%. Orig. art. has: 5 figures. Bibliography of 2 titles. [Translation of abstract] [NT]

SUB CODE: 20/

Card 1/1 LS UDC: 62-52:621.374.36

KHARITONOV, A.G., glavnyy mekhanik

Effect of suction conditions on the performance of centrifugal mine pumps. Ugol' Ukr. 4 no.12:15-17 D '60. (MIRA 13:12)

1. Shakhta "Butovka-Donetskaya" tresta Kuybyshevugol'.
(Mine pumps)

PAVLYUK, N.P., inzh.; VAKUL'CHIK, V.G., inzh.; SERDYUK, N.S., inzh.; KRYLOVA, A.S., inzh.; KHARITONOV, A.G., inzh.

Remote control and romote signaling apparatus for mine ventilation systems. Ugol.prom. no.5:64-66 S-O '62. (MIRA 15:11)

1. Luganskiy filial instituta avtomatiki Gosplana UkrSSR.
(Mine ventilation) (Remote control)

S/169/62/000/007/025/149
D228/D307

AUTHOR: Kharitonov, A. I.

TITLE: Grouping of seismic detectors and excitation sources under complex seismo-geologic conditions

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 21, abstract 7A141 (V sb. Sostoyaniye i perspektivy razvitiya geofiz. metodov poikov i razvedki polezn. iskopayemykh, M., Gostoptekhizdat, 1961, 252-257)

TEXT: Operations were conducted in the Ferganskaya Valley and in the Surkhandar'inskaya Oblast', where observations with single devices are ineffectual on account of the presence of various intense wave-interferences. The study of the wave field, the construction of the groups, and the choice of their parameters were made on the basis of Golzman's (Gol'tsman's) frequency theory of grouping. The method of studying the wave-interference and calculating the optimal groups of sources and receivers is described. The application of the grouping of many seismic detectors and sources (10 -

Card 1/2

S/169/62/000/007/025/149
D228/D307

Grouping of seismic ...

20), and the use of the frequency theory's deductions, allow satisfactory seismic material to be obtained for areas, formerly inaccessible for reflection surveys. [Abstracter's note: Complete translation.]

Card 2/2

KHARITONOV, A. I.

AUTHOR: Kharitonov, A.I., Engineer. 110-9-17/23

TITLE: A Graphical-analytical Method of Calculating the Distribution of the Load between Traction Motors of an Electric Locomotive under Conditions of Regenerative Braking. (Grafcanaliticheskiy metod rascheta raspredeleniya nagruzok tyagovykh mashin elektrovoza v rezhime rekuperativnogo tormozheniya)

PERIODICAL: Vestnik Elektropromyshlennosti, 1957, Vol.28, No.9, pp. 65 - 70 (USSR)

ABSTRACT: When operating under conditions of regenerative braking at medium and high speeds, the motors of a locomotive are connected in parallel. Differences between the magnetisation characteristics of the motors and also between the wheel diameters of the locomotive wheel cause the machine armatures to be loaded unequally. This article is concerned with a graphical-analytical method of determining the load distribution between the parallel-connected motors. Two circuits used in Soviet locomotives are considered: the circuit with stabilising resistances used in locomotive BJ1-22M and the circuit with cyclic stabilisation of the 8-axle electric locomotive type H-8. The physical nature of the processes of load equalisation between machines in these two kinds of circuit are considered.

Card 1/4

110-9-17/23

A Graphical-analytical Method of Calculating the Distribution of the Load between Traction Motors of an Electric Locomotive under Conditions of Regenerative Braking.

For each motor the difference in the e.m.f. is a function of the equalising current, and the problem consists in equating the expressions for the equalising currents in the different motors. In solving the equation it is assumed that within the limits of possible differences of excitation current, the magnetisation curves are parallel straight lines. On this assumption, the relationship between the field current and the voltage difference is easily found by the methods shown in Fig.1. In formulating the second part of the equation it is assumed that corresponding parts of parallel circuits are of equal resistance and that the armature e.m.f. do not depend on the currents flowing in them. This is equivalent to ignoring armature reaction which could be taken into account, but does not make very much difference to the results. The equivalent circuit diagram for electric locomotives BJ1-22M (Fig.2a) is then considered and voltage-difference expressions are derived. The circuit of locomotive H8 (Fig.2b) is then similarly treated. Finally, an expression is found for the equalising current. To verify the proposed method of calculation, the Leningrad Polytechnical Institute tested the current-distribution between two tramways motors type U-104

Card2/4

KHARITONOV, Aleksandr Ivanovich; CHERNOV, I.

[Principal economic task of the U.S.S.R.] Osnovnaia ekonomicheskaia zadacha SSSR. Leningrad, 1958. 74 p. (MIRA 12:6)

(Russia--Economic policy)

KHARITONOV, Aleksandr Ivanovich; RAUD, V.M., kand.ekonom.nauk, nauchnyy red.; GRIBAKIN, D.V., red.izd-va; GURDZHIYEVA, A.M., tekhn.red.

[Role of labor productivity in solving the main economic task of the U.S.S.R.] Rol' proizvoditel'nosti truda v reshenii osnovnoi ekonomicheskoi zadachi SSSR. Leningrad, Ob-vo po rasprostraneniiu polit. i nauchn.znanii RSFSR, Leningr.otd-nie, 1960. 67 p. (MIRA 14:2)
(Labor productivity)

SKOBELEV, VIKTOR YEFIMOVICH, kand.tekhn.nauk, dotsent; KHARITONOV, ANDREY IL'ICH, assistent

Components of the transformer e.m.f. in pulsating current traction motors. Izv. vys. ucheb. zav.; elektromekh. 4 no.6: 33-41 '61. (MIRA 14:7)

1. Leningradskiy politekhnicheskiy institut.
(Electric railway motors)

AKULOV, N.S.; LUKHVICH, A.A.; KHARITONOV, A.I.

Shape of deformation-stress curves for metals under the effect of alternating loads. Sbor. nauch. trud. Fiz.-tekh.inst. AN BSSR no.7:9-12 '61. (MIRA 15:7)
(Strains and stresses)

S/571/61/000/007/001/010
I048/I248

AUTHORS: Akulov,N.S., Lukhvich,A.A., and Kharitonov,A.I.

TITLE: Shape of the stress-strain curves of metals under variable-sign loads

SOURCE: Akademiya nauk Belaruskay SSR. Fiziko-tekhnicheskiy institut. Sbornik nauchnykh trudov. no. 7. 1961. 9-12

TEXT: Equations for the stress-strain relationship in metals under variable-sign loads are:

$$\sigma = \sigma_0 + (\sigma_m + \sigma_0)[1 - e^{(\beta-\alpha)(\varepsilon-\varepsilon_0)}] \quad (2)$$

for the creep curve, and

$$\varepsilon = b\sigma^2 \quad (5)$$

for the plastic deformation range, where σ is the acting stress, σ_0 is the stress corresponding to the beginning of creep and ε_0 is the corresponding deformation, ε is the resultant deformation and σ_m is the maximum deformation sic ; b is a constant, α and β

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S/571/61/000/007/001/010
I048/I248

Shape of the stress-strain curves...

are not defined in the text. Experiments were carried out with annealed copper and low-carbon steel cylinders; under torsional loads Hooke's law was mainly valid. In the plastic range the stress-strain relationship was exponential in the case of Cu and linear in the case of Fe, indicating that the number of Frank-Read dislocation sources in Cu increased exponentially while that in Fe remained constant, i.e., in no case was there a parabolic relationship. In other experiments strains much larger than the proportional limit were obtained, and then a reverse load applied to complete the hysteresis loop; thereafter, the forward load was applied. The metal under the second forward load behaved otherwise than under the first forward load; no part of the stress-strain curve conformed to Hook's law but became parabolic, indicating that the test conditions disobey the Taylor rule; due to the formation of a large number of blocked dislocations that hinder the motion of single dislocations. The transition from a relation-

Card 2/3

RUDAKOV, A.G.; KHARITONOV, A.I.; CHICHININ, I.S.

Practice of using the frequency theory of grouping in the Uzbek Geophysical Trust. Vop. din. teor. raspr. seism. voln no.4:220-230 '62. (MIRA 15:10)

(Uzbekistan—Seismometry)

BATUKHIN, Ivan Luk'yanovich; KHARITONOV, Aleksandr Ivanovich; NIKIFOROV, A.F., kand. ekon. nauk, nauchnyy red.; BRAILOVSKIY, V.A., red.izd-va; GURDZHIYEVA, A.M., tekhn. red.

[Potentials for increasing labor productivity in industrial enterprises]Rezervy rosta proizvoditel'nosti truda na promyshlennykh predpriiatiiakh. Leningrad, Ob-vo po rasprostraneniiu polit. i nauchn. znanii RSFSR, 1962. 87 p. (MIRA 16:3)

(Labor productivity)

KHARITONOV, A.I., inzh.

Use of a model in studying the mutual effect of parallel operating converters. Elektrotekhnika 34 no.11:19-24 N '63. (MIRA 17:2)

DRIATSKIY, Nikolay Mikhaylovich; KHARITONOV, Anatoliy Ivanovich; LESHCHINSKIY, A.A., otv. red.; ROZOVSKAYA, M.I., red.

[Individual equipment SIO-60 for multichannel long-distance communication systems] Individual'noe oborudovanie SIO-60 dlia mnogokanal'nykh sistem dal'nei sviazi. Moskva, Izd-vo "Sviaz'," 1964. 64 p. (MIRA 17:6)

KHARITONOV, A.I.; LISHUNIN, P.G., starshiy inzh.-inspektor svyazi

Principal trends in the development of telegraph communication. Avtom. telem. i sviaz' 8 no. 3:22 Mr '64. (MIRA 17:5)

1. Nachal'nik otdela telefonnoy i telegrafnoy svyazi Glavnogo upravleniya signalizatsii i svyazi Ministerstva putey soobshcheniya (for Kharitonov).

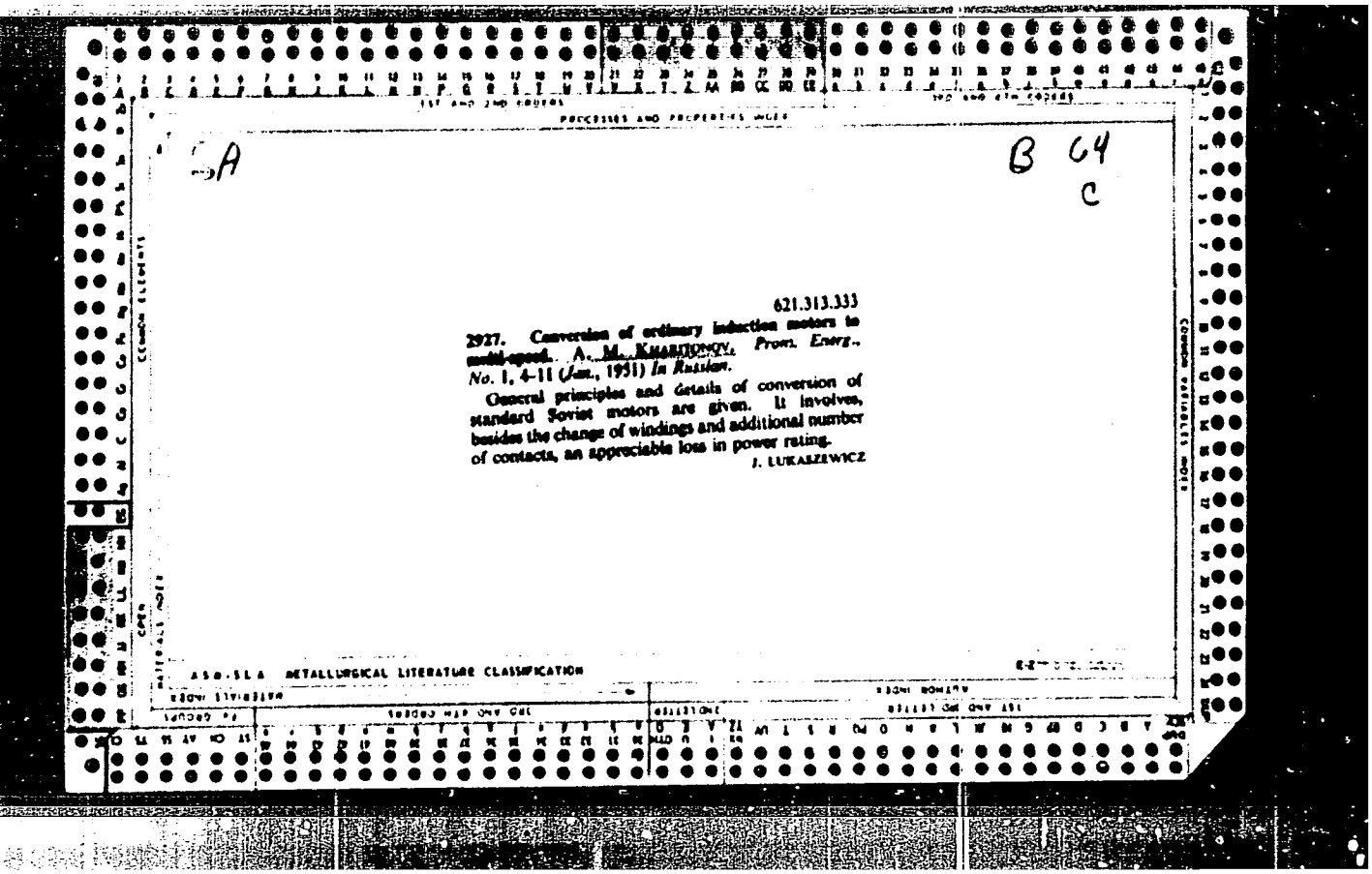
INOGAMOV, R.Sh.; NAKHAMKIN, S.A.; RUDAKOV, A.G.; KHARITONOV, A.I.

Using the controlled directional sensitivity method with preliminary multi-element grouping under conditions of intensive seismic interference. Prikl. geofiz. no.39:62-74 '64. (MIRA 17:9)

KHARITONOV, A.M.

Multi-speed low-power electric motors. Stan. i instr. 18 no.8:24-26 Ag '47. (MLRA 9:1)

1.Eksperimental'nyy nauchno-issledovatel'skiy institut metallorezhushchikh stankov.
(Electric motors) (Machine tools--Electric driving)



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2927. Conversion of ordinary induction motors to multi-speed. A. M. KARAPETYAN. *Prom. Energ.*, No. 1, 4-11 (Jan., 1951) *In Russian.*

General principles and details of conversion of standard Soviet motors are given. It involves, besides the change of windings and additional number of contacts, an appreciable loss in power rating.

J. LUKASZEWICZ

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Electric Motors, Induction

Converting one-speed asynchronous electric motors to multiple speed. Prom. energ. 9 no. 2, 1/52

9. Monthly List of Russian Accessions, Library of Congress, November 1958, 2 Uncl.

KHARITONOV, Aleksandr Mikhaylovich; ANTIK, I.V., redaktor; SKVORTSOV, I.M., tekhnicheskiy redaktor.

[Multi-speed electric motors] Mnogoskorostnye elektrodvigateli. Moskva, Gos. energeticheskoe izd-vo, 1954. 223 p. (MLRA 8:2)
(Electric motors)

KHARITONOV, A.M.

USSR/ Engineering - Electric motors

Card 1/1 Pub. 103 - 2/19

Authors : Kharitonov, A. M.

Title : Multispeed motors for electri macjine drives

Periodical : Stan. i instr. 2, 5 - 11, Feb 1955

Abstract : The broad possibilities for the application of multispeed electric motors for the operation of universal and special metal or wood cutting machines are discussed. The advantages derived by numerous plants by replacing the single speed electric motors with multispeed units are listed. Technical data regarding the capacitance and rpm of various multispeed electric motors of the A, AO and T-series are tabulated. Tables; illustration; drawing.

Institution: .....

Submitted: .....

KHARITONOV, A. M.

KHARITONOV, A. M. "Multi-speed Electric Motors." Min Higher Education USSR. Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 18, 1956,

112-57-8-16691

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 8, p 105 (USSR)

AUTHOR: Kharitonov, A. M.

TITLE: Multispeed Electric Motors for Machine Drive
(Mnogoskorostnyye elektrodvigateli v privodakh mashin)

PERIODICAL: Sb.: Avtomatizatsiya tekhnol. protsessov v mashinostr. Privod i upravleniye mashinami (Collection: Automation of Technological Processes in Machine Building. Driving and Control of Machines), Moscow, AS USSR, 1956, pp 16-22

ABSTRACT: Information is given on multispeed three-phase squirrel-cage induction motors used as an electric drive for machine tools. The author considers a method of changing the motor speed by changing the number of stator poles. He makes a comparison of single- and double-winding multispeed motors and points out the advantages of the single-winding system. For the same frame, the capacity of a single-winding motor is 1.6-2 times as large as that of a double-winding motor. A single-winding motor has the additional advantages of higher energy performance and lower starting current. Application of multispeed motors in various branches of industry and transportation is described.

Card 1/2

AUTHOR: Kharitonov, A.M., Candidate of Technical Sciences (Moscow) 105-58-5-14/28

TITLE: Motors With Several Speeds and a Disconnecting Device at Highest Rotational Speeds of Part of the Turns of the Winding (Mnogoskorostnyye dvigateli s otklyucheniyem pri vysshikh skorostyakh vrashcheniya chasti vitkov obmotki)

PERIODICAL: Elektrichestvo, 1958, Nr 5, pp. 59-62 (USSR)

ABSTRACT: On the basis of examples, the case of pole-changing, which is the most frequently occurring case in practice, the ratio of which is 6 : 4 : 2, is studied. The following schemes are shown: 1.) 2p = 6 for series- and parallel connection of the parts of the windings in the phase. 2.) Part of the winding is disconnected at 2p = 4 and 2p = 2, and only 6 of the 9 windings of the circuit are in action. 3.) Connection of parts of the winding at 2p = 4 and 2p = 2. At 2p = 4 one third of the turns of the windings is disconnected, and with 2p = 2 the entire winding is used. - Two motors of the "Ural" series, type P-42, were used for the experiments. In both motors the windings have two layers, the number of

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grooves in the stator is Z_1=36 and in the rotor - Z_2=26. On the strength of these statements the following may be said: 1.) Disconnection of part of the winding in the motor with several speeds at higher rotational speeds simplifies the construction of the throw-over switch, it permits a reduction of dimensions, and warrants greater operational reliability of the motor. 2.) In the course of experiments it was found that in the case of higher rotational speeds part of the turns of the winding can be disconnected without any noticeable deterioration of the mechanical characteristics of the motor being caused. This possibility is essentially determined by two factors: by the pitch of the winding and by the grouping of winding sections in the coil. 3.) The increase of the pitch of the winding in all cases improves the starting characteristics of the motor at high rotational speeds. In schemes concerning the disconnection of part of the winding it is therefore recommended to provide for a winding in which the winding factor is not greatly reduced at the lowest velocity. In any case, an increase of pitch of up to 0.7-0.8 of the full pitch y_n is to be recommended for the number of poles at which disconnection

takes place. At $y = 0.8\ y_n$ up to 33% of the turns of the winding can be disconnected without an essential deterioration of the mechanical characteristics of the motor. At $y \geqslant 0.67\ y_n$ this is possible up to 25% and at $y \geqslant 0.55\ y_n$ up to 15% of the turns. 4.) In windings with a small number of coils and a large q the mechanical characteristic during starting improves more than in the case of windings with a large number of coils and a low number of grooves per pole and phase. 5.) As the ratios between the number of grooves in stator and rotor ($Z_1 = 36$, $Z_2 = 26$) in the case of the investigated P-42 motors are analogous to the ratios in motors of the unit series A with 4 and 6 poles, the conclusions drawn here apply also in the case of motors of the unit-series. There are 5 figures, and 2 Soviet references.

SUBMITTED: December 3, 1956

AVAILABLE: Library of Congress

Card 3/3 1. Electric motors--Control systems 2. Electric motors--Design 3. Electric motors--Performance

SHEYNBERG, S.A., doktor tekhn.nauk; KHARITONOV, A.M., kand.tekhn.nauk

Aerodynamic supports for high-speed engines and turbines. Vest. mash. 38 no.9:14-17 S '58. (MIRA 11:10)
(Bearings)

SOV/110-59-9-15/22

AUTHOR: Kharitonov, A.M. (Cand. Tech. Sci.)

TITLE: Multi-speed Motors Series T

PERIODICAL: Vestnik elektropromyshlennosti,1959,Nr 9,pp 52-55 (USSR)

ABSTRACT: Three-phase single-winding multi-speed induction motors series T have been made in frame sizes Nr 4 and 5 since 1952. Nineteen multi-speed modifications of Nr 4 frame size motors are now in series production and 23 modifications in Nr 5 frame size. In 1956 multi-speed motors series T were used in more than 70 types of machine tools and woodworking machines. The totally-enclosed ventilated construction is used and the number of terminals brought out may be up to 24. Cast aluminium rotors are used. In most respects series T motors are very similar to those of series AO. The two series differ mainly in their stator and rotor slot dimensions, which are compared in Table 1. It will be seen that motors series T have the larger slot area by about 20%. Details are given of the different pole-changing arrangements. It is stated that series T motors can give higher output than series A because under all conditions of pole-changing the full winding is used, whereas with series A sometimes only part

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of it is used. Output data of the various type series A and T motors are given in Table 2. Rated outputs of motors in the T series are given in Table 3. In the series T motors the starting-current ratio is appreciably lower than in ordinary single-speed two-winding multi-speed motors. The main technical characteristics of series A and T motors such as power, speed, efficiency and power factor, are compared in Table 4. Series A motors are better than series T only in respect of simplicity of pole-changing arrangements; in general, series T requires more terminals. Methods of improving this situation are under consideration and are briefly described.

There are 4 tables.

[redacted] RATONOV, A.N.

Method for solving a problem concerning maximum response time of objects, the dynamic characteristics of which are determined by an experimental method. Trudy MET no.59:213-228 '65.

(MIRA 18:12)

ALEKSANDROVSKIY, N.M., kand.tekhn.nauk, dotsent; KHARITONOV, A.N.

Use of computers in the control of complex industrial processes.
Trudy MEI no.59:185-194 '65.
(MIRA 18:10)

KHARITONOV, A.P.

[Collective farms in Tataria and a new stage in their development] Kolkhoznyi stroi v Tatarii i novyi etap ego razvitiia. Kazan', Izd-vo Kazanskogo univ., 1958. 46 p. (MIRA 14:4)

(Tatar A.S.S.R.--Collective farms)

MERLIN, V.S.; MARTYNOV, D.Ya., otvetstvennyy redaktor; MARKOV, M.V., professor, redaktor; SHAFUGULLIN, A.G., professor, redaktor; ARBUZOV, B.A., professor, redaktor; DYUKOV, I.A., professor, redaktor; NORDEN, A.G., professor, redaktor; PISAREV, V.I., professor, redaktor; TIKHVINSKAYA, Ye. I., professor, redaktor; ABDRAKHMANOV, M.I., dotsent, redaktor; MOROZOV, D.G., dotsent, redaktor; KHARITONOV, A.P., dotsent, redaktor; KOLOBOV, N.V., redaktor; KOLESNIKOVA, Ye.A., starshiy prepodavatel', redaktor; ROZHDESTVENSKIY, B.P., dotsent, redaktor.

[Peculiarity of conditioned reactions in the structure of a voluntary act] Svoeobrazie uslovnykh reaktsii v strukture volevogo akta. Kazan', 1953. 123 p. (Kazan. Universitet. Uchenye zapiski, vol.113, no.3)
(MLRA 10:3)

1. Rektor universiteta (for Martynov); 2. Prorektor po nauchnoy rabote (for Markov); 3. Prorektor po uchebnoy rabote (for Shafugullin). 4. Sekretar' partbyuro universiteta (for Kolobov)
(CONDITIONED RESPONSE) (WILL)

MADANOV, P.V.; MARTYNOV, D.Ya., otvetstvennyy redaktor; MARKOV, M.V., professor, redaktor; SHAFUGULLIN, A.G., professor, redaktor; ARBUZOV, B.A., akademik, redaktor; DYUKOV, I.A., professor, redaktor; NORDEN, A.P., professor, redaktor; PISARNV, V.I., professor, redaktor; TIKHVINSKAYA, Ye.I., professor, redaktor; ABDRAKHMANOV, M.I., dotsent, redaktor; MOROZOV, D.G., dotsent, redaktor; KHARITONOV, A.P., dotsent, redaktor; KOLOBOV, N.V., redaktor; KOLESNIKOVA, Ye.A., starshiy prepodavatel', redaktor; VINOKUROV, M.A., professor, redaktor.

[Biological accumulation of manganese in soils of the Volga-Kama forest-steppe and its availability to plants] Biologicheskaia akkumuliatsiia margantsa v pochvakh Volzhsk-Kamskoi lesostepi i ego dostupnost' sel'skokhoziaistvennym rasteniiam. Kazan', 1953. 202 p. (Kazan. Universitet. Uchenye zapiski, vol.113, no.7) (MLRA 10:3)

1. Rektor universiteta (for Martynov). 2. Prorektor po nauchnoy rabote (for Markov). 3. Prorektor po uchebnoy rabote (for Shafugullin) 4. Sekretar' partbyuro universiteta (for Kolobov).
(Plants, Effect of manganese on)
(Volga Valley--Forest soils)

NEPRIMEROV, N.N.; SHARAGIN, A.G.; NUZHIN, M.T., prof., otv. red.; MARKOV, M.T., prof., zamestitel' otv. red.; KASHTANOV, S.G., prof., red.; AHBUZOV, B.A., akademik, red.; AL'TSHULER, S.A., prof., red.; LIVANOV, N.A., prof., red.; NORDEN, A.P., prof., red.; PISAREV, V.I., prof., red.; TIKHVINSKAYA, Ye.I., prof., red.; BARYSHNIKOV, V.G., dots., red.; KOLESNIKOVA, Ye.A., dots., red.; KOLOBOV, N.V., dots., red.; MOROZOV, D.G., dots., red.; KHARITONOV, A.P., dots., red.; YUDIN, I.N., red.; SAMITOV, Yu.Yu., red.

[Investigations of wells and development of preventive paraffin control methods] Issledovanie skavazhiny i razrabotka preventivnykh metodov bor'by s parafinom. Kazan' 1957. 108 p. (Kazan. Universitet. Uchenye zapiski, vol. 117, no.3). (MIRA 11:5)

1. Rektor Kazanskogo gosudarstvennogo universiteta (for Nuzhin). 2. Prorektor po nauchnoy rabote Kazanskogo gosudarstvennogo universiteta (for Markov). 3. Prorektor po uchebnoy rabote Kazanskogo gosudarstvennogo universiteta (for Kashtanov). 4. Sekretar' partkoma Kazanskogo gosudarstvennogo universiteta (for Yudin).
(Oil wells) (Petroleum engineering)

GARMASH, G.K.; GRIDIN, I.R.; KULISHENKO, A.Z.; KHARITONOV, A.S.

Magnetic density relay. Zav.lab. 29 no.2:241-242 '63.
(MIRA 16:5)

(Electric relays) (Automatic control) (Suspensions (Chemistry))

PEREVALOV, N.N., inzhener; KHARITONOV, A.S., inzhener.

Intensification of the final melting. Sbor.trud.TSNIICHM no.13: 109-126 '56. (MLRA 9:11)
(Zaporozh'ye--Open-hearth process)
(Oxygen--Industrial applications)

Kharitonov, A.S.

18(5) PHASE I BOOK EXPLOITATION SOV/2295

Moscow. Institut stali

Primeneniye kisloroda v staleplavil'nom proizvodstve (Use of Oxygen in Steelmaking) Moscow, Metallurgizdat, 1957. 418 p. (Series: Its: Sbornik, 37) Errata slip inserted. 3,500 copies printed.

Ed.: Ye. A. Borko; Ed. of Publishing House: Ya. D. Rozentsveyg; Tech. Ed.: Ye. B. Vaynshteyn; Editorial Board of the Institute: M.A. Glinkov, Doctor, Professor; R.N. Grigorash, Candidate of Technical Sciences, Docent; N.T. Gudtsov, Academician; V.P. Yelyutin, Doctor, Professor; A.A. Zhukhovitskiy, Doctor, Professor; I.N. Kidin, (Resp. Ed.) Doctor, Professor; E.G. Livshits, Doctor, Professor; A.P. Lyubimov, Doctor, Professor; I.M. Pavlov, Corresponding Member, Academy of Sciences, USSR; K.G. Trubin, Doctor, Professor; and A. N. Pokhvisnev, Doctor, Professor

PURPOSE: This collection of articles is intended for scientific, industrial, chemical, and metallurgical engineers, physicists

Card 1/9

and students.

COVERAGE: This book is a collection of scientific research papers on the utilizations of oxygen in steelmaking. The use of oxygen blast for the intensification of fuel combustion and the introduction of oxygen into liquid metal in order to oxidize admixtures are among the topics discussed. The use of oxygen in scrap-ore processes for making steel from pig iron with a high phosphorus content is also discussed. Several articles deal with the heating and processing fundamentals of steelmaking in a recirculation steel-melting furnace. Individual articles deal with the economics of steelmaking with oxygen-blast and the optimum conditions for effective utilization of oxygen. No personalities are mentioned. References follow each article.

TABLE OF CONTENTS:

This article deals with the thermal and technical aspects of a 10-ton industrial recirculation steel-melting furnace with simultaneous fuel feed from both ends accompanied by the application of oxygen-enriched air.

AVAILABLE: Library of Congress
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SOV/137-58-10-20552

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 29 (USSR)

AUTHOR: Kharitonov, A.S.

TITLE: On a Combined Method of Using Oxygen in Open-hearth Steel-making (K voprosu o kombinirovannom metode primeneniya kisloroda v martenovskom proizvodstve)

PERIODICAL: Sb. nauchn. tr. Zhdanovsk. metallurg. in-t, 1957, Nr 4, pp 5-10

ABSTRACT: To avoid splashing and dust formation during O_2 blow of a bath with high [C], a combination of work with air enriched by 24-28% O_2 with high [C] during the ore boil and bath blow with O_2 when [C] $\leq$ 0.5% during the pure boil is carried out in several heats of low-carbon steel. During the first period (~30 minutes), the O_2 consumption is 465-770 m^3, ore addition being 2.5-4.0% of the weight of the metal. Introduction of O_2 into the bath begins immediately after its introduction into the flame is cut off. The consumption of O_2 in the refining period is 590-725 m^3. When an O_2-enriched jet is used, V_C is 1.10-1.25%/hr. However, the average V_C for the entire boil period also fluctuates from 0.66 to 0.87%/hr instead of 0.4% in

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SOV/137-58-10-20552

On a Combined Method of Using Oxygen in Open-hearth Steelmaking

ordinary heats. The total O_2 consumption during the period of boil is 6-8 m^3/t. The boil period is reduced by 50 to 70 minutes. This type of bath blow is relatively quiet, and the action of splashing and dust upon the furnace refractories is reduced.

Yu.N.

1. Steel--Production 2. Open hearth furnaces---Operation 3. Oxygen---Thermal effects

Card 2/2

SOV/137-58-10-20553

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 29 (USSR)

AUTHOR: Kharitonov, A.S.

TITLE: Intensification of Decarburization and Heating of the Bath in Oxygen Blow (Intensifikatsiya obezuglerozhivaniya i nagreva vanny pri produvke kislorodom)

PERIODICAL: Sb. nauchn. tr. Zhdanovsk. metallurg. in-t, 1957, Nr 4, pp 30-46

ABSTRACT: A study is made of the special features of the smelting of low-carbon rimmed steel with the purpose of finding the optimum blow parameters and melting procedure. The heats are run in 185-t open-hearth furnaces, the O_2 being introduced through water-cooled tuyeres of the G.S. Sel'kin design. The conditions of C oxidation as the metal is blown by oxygen depend upon [C], the intensity of the blow, and the ore conditions of the heat during the period of blow, i.e., upon the ratio between the quantities of Fe ore introduced into the bath and of gaseous O_2. Thus, an increase in the intensity of the metal blow from 20 to 40 m^3/min, i.e., by 100%, increases V_C by 150%. In this procedure, control of V_C and the heating of the bath is

Card 1/2

Intensification of Decarburization and Heating of the Bath in Oxygen Blow

attained by addition of Fe ore. The best results are obtained at ratios of ~3.5 kg ore per m^3 O_2, in which case the consumption of O_2 comes to 3.5-10 m^3/t finished ingots, depending upon the initial [C]. When O_2 is employed in this way, the average V_C is 0.7-1.15%/hr instead of 0.35-0.45% with the standard process, and the rate of heating of the metal during the period of boil (from the moment of fusion to deoxidation)is 55-145 degrees C/hour, while under the standard process the rate of heating of the metal varied from 30 to 50 degrees/hour. The overall reduction in the duration of a heat is 50 to 100 minutes.

Yu.N.

1. Steel--Production 2. Carbon--Separation 3. Open hearth furnaces--Operation
4. Carbon--Oxidation 5. Oxygen--Effectiveness

SOV/137-58-9-18572

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 56 (USSR)

AUTHOR: Kharitonov, A.S.

TITLE: The Employment of Oxygen-enriched Air in Smelting of Rimmed Steel (Vyplavka kipyashchey stali s primeneniyem kisloroda dlya obogashcheniya vozdukha)

PERIODICAL: Tr. Donetsk. otd. Nauchno-tekhn. o-va chernoy metallurgii, 1957, Nr 5, pp 76-91

ABSTRACT: An account of the results of an investigation dealing with the effectiveness of a method whereby the air blast of open-hearth furnaces is enriched with 25-30% of O_2 during the working period; this method was employed in 1953-1954 for the 185-ton furnaces of the "Zaporozhstal' " plant. Ref RZhMet, 1958, Nr 6, abstract 11682.

A.D.

1. Steel--Production 2. Open hearth furnaces--Operation
3. Oxygen--Performance

Card 1/1

137-58-6-11682

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 66 (USSR)

AUTHORS: Kharitonov, A.S., Trubin, K.G.

TITLE: Use of Oxygen in the Burner Flame to Intensify Carbon Removal in an Open-hearth Bath (Primeneniye kisloroda fakel'nym sposobom dlya intensifikatsii obezuglerozhivaniya martenovskoy vanny)

PERIODICAL: Sb. Mosk. in-t stali, 1957, Vol 37, pp 38-79

ABSTRACT: Results are presented of a study of the effectiveness of the enrichment of blower-delivered air in open-hearth furnaces with up to 25-28% O_2 during the periods of charging, heating, melt-down, and working of the heat. The experiments were run in 185-t open-hearth furnaces at the Zaporozhstal' plant, heated by an uncarburetted mixture of coke and blast furnace gas, as 08 kp steel was made by the scrap-and-ore process. [C] was 0.7-1.4% of the molten metal. When air enriched with up to 28% O_2 was used during >70% of the boiling time, the speed of carbon removal almost doubled. This was the result of the high speed of transport of O_2 from the gas phase into the metal: in experimental heats, this was found to be

Card 1/2

Use of Oxygen in the Burner (cont.)

9.4 kg/m^2·hr as against 5.7 kg/m^2·hr in standard heats. This last is explained chiefly by the presence of an increased gradient of Fe_2O_3 contents between the upper and lower layers of slag in the portion of the bath adjacent to the oxygen tuyeres. Improvement in heat exchange in the furnace proper thanks to the increase in the oxidizing capacity of the flame made it possible to raise the mean hourly rate of heating of the metal during the boil period from 30-50°C in ordinary heats to 100° in heats with air enriched with up to 28% O_2, the heat input being virtually identical. This made possible high-ore heats. The mean time saving per heat when O_2 was used during up to 65% of the boil period was 6 min per m^3 O_2/ton ingots. The yield of satisfactory metal and its quality were equivalent to the usual. In the scrap-and-ore process the use of O_2 during the period of boil is no less effective than during the charging, heating, and melt-down periods.

A.D.

1. Open hearth furnaces--Performance 2. Oxygen--Applications 3. Carbon--Reduction

Card 2/2

SOV/133-58-8-8/30

AUTHORS: Kharitonov, A.S., Candidate of Technical Sciences, Docent, Bul'skiy, M.T., Alimov, A.G., Glinkov, G.M. and Beloglovskiy, M.Sh., Engineers

TITLE: Optimum Temperature Conditions for Smelting Rimming Steel from Phosphorus Pig Iron (Optimal'nyy temperaturnyy rezhim vyplavki kipyashchey stali iz fosforistogo chuguna)

PERIODICAL: Stal', 1958, Nr 8, pp 706 - 709 (USSR)

ABSTRACT: An outline of the smelting practice of rimming steels used in the Azovstal' Works is given. On the basis of an analysis of the temperature data during the refining period of a large number of heats, the optimum metal temperature at the beginning of boiling and before deoxidation was established in order to obtain steel with a low consumption coefficient. The influence of the charging rate of additions during the refining period on the velocity of heating of metal - Figure 1; the influence of the metal temperature at the beginning of pure boiling on the number of ladles of metal of low and high consumption coefficients - Figure 2; the influence of metal temperature before deoxidation on the number of ladles of metal of high and low consumption coefficients - Figure 3;

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Optimum Temperature Conditions for Smelting Rimming Steel from Phosphorus Pig Iron

the influence of the [Mn] : [C] ratio in the finished rimming steels on the consumption coefficient of metal - Figures 4 and 5 (A); frequency distribution of the number of ladles of steel with different [Mn] : [C] ratios - Figure 5 (B). It was also established that it is advantageous to produce rimming steel with the manganese content in the ladle sample near to the lower limit permitted by standards and that the ratio of [Mn] [C] in the finished steel should not exceed 2.7 for steels St0, 1 and 2kp and 2.5 for steel St3kp. There are 5 figures and 3 Soviet references.

ASSOCIATIONS: Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute) and Zavod "Azovstal'" ("Azovstal'" Works)

1. Steel--Producton 2. Steel--Temperature factors

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KULISHENKO, A.Z.; KHARITONOV, A.S.; KUZ'MENKO, A.S.; GARMASH, G.K.

Determination of the viscosity of magnetite in suspension by measuring its magnetic permeability in conjunction with a radioactive densitometer. Koks i khim. no.2:13-15 '60.
(MIRA 13:5)

1. Ukrainskiy uglekhimicheskiy institut(for Kulishenko, Kharitonov). 2. Yasinovskiy koksokhimicheskiy zavod(for Kuz'-menko, Garmash).
(Yasinovka--Coal preparation) (Magnetite)

KHARITONOV, A-S.

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PHASE I BOOK EXPLOITATION SOV/5556

Moscow. Institut stali.

Novoye v teorii i praktike proizvodstva martenovskoy stali (New [Developments] in the Theory and Practice of Open-Hearth Steelmaking) Moscow, Metallurgizdat, 1961. 439 p. (Series: Trudy Mezhvuzovskogo nauchnogo soveshchaniya) 2,150 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR. Moskovskiy institut stali imeni I. V. Stalina.

Eds.: M. A. Glinkov, Professor, Doctor of Technical Sciences, V. V. Kondakov, Professor, Doctor of Technical Sciences, V. A. Kudrin, Docent, Candidate of Technical Sciences, G. N. Oyks, Professor, Doctor of Technical Sciences, and V. I. Yavoyskiy, Professor, Doctor of Technical Sciences; Ed.: Ye. A. Borko; Ed. of Publishing House: N. D. Gromov; Tech. Ed.: A. I. Karasev.

PURPOSE: This collection of articles is intended for members of scientific institutions, faculty members of schools of higher education, engineers concerned with metallurgical processes and physical chemistry, and students specializing in these fields.

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New [Developments] in the Theory (Cont.) SOV/5556

COVERAGE: The collection contains papers reviewing the development of open-hearth steelmaking theory and practice. The papers, written by staff members of schools of higher education, scientific research institutes, and main laboratories of metallurgical plants, were presented and discussed at the Scientific Conference of Schools of Higher Education. The following topics are considered: the kinetics and mechanism of carbon oxidation; the process of slag formation in open-hearth furnaces using in the charge either ore-lime briquets or composite flux (the product of calcining the mixture of lime with bauxite); the behavior of hydrogen in the open-hearth bath; metal desulfurization processes; the control of the open-hearth thermal melting regime and its automation; heat-engineering problems in large-capacity furnaces; aerodynamic properties of fuel gases and their flow in the furnace combustion chamber; and the improvement of high-alloy steel quality through the utilization of vacuum and natural gases. The following persons took part in the discussion of the papers at the Conference: S.I. Filippov, V.A. Kudrin, M.A. Glinkov, B.P. Nam, V.I. Yavoyskiy, G.N. Oyks and Ye. V. Chelishchev (Moscow Steel Institute); Ye. A. Kazachkov and A. S. Kharitonov (Zhdanov Metallurgical Institute); N.S. Mikhaylets (Institute of Chemical Metallurgy of the Siberian Branch of the Academy of Sciences USSR); A.I. Stroganov and D. Ya. Povolotskiy (Chelyabinsk Polytechnic Institute); P.V. Umrikhin (Ural Polytechnic Institute); I.I. Fomin (the Moscow "Serp i molot" Metallurgical Plant); V.A. Fuklev (Central Asian Polytechnic Institute)

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New [Developments] in the Theory (Cont.) SOV/5556

and M.I. Beylinov (Night School of the Dneprodzerzhinsk Metallurgical Institute). References follow some of the articles. There are 268 references, mostly Soviet.

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AVAILABLE: Library of Congress (TN740.M58)

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KUZNETSOV, A.F.; KHARITONOV, A.S.; MOLONOV, G.D.

Effect of the method of deoxidation and conditions of casting on the quality of pipe steel. Izv. vys. ucheb. zav.; chern. met. 4 no.8:43-47 '61. (MIRA 14:9)

1. Zhdanovskiy metallurgicheskiy institut.
(Steel--Metallurgy)

KULISHENKO, A.Z., kand. tekhn. nauk; KHARITONOV, A.S.; GRIDIN, I.A.

Capacitance transducer for measuring the moisture content of the coking charge in the flow. Koks i khim. no.9:16-19 '62. (MIRA 16:10)

1. Ukrainskiy uglekhimicheskiy institut.
(Moisture—Measurement) (Coke)

KADANTSEV, O.G.; KHARITONOV, A.S.; TARASOVA, T.I.

Mechanical properties of structural steel smelted from phosphorous cast iron in an oxygen-blown converter. Izv. vys. ucheb. zav.; cherm. met. 7 no.1:133-35 '64. (MIRA 18:1)

1. Dneprovskiy metallurgicheskiy institut.

LIKHACHEV L.Ya., inzh.; KHARITONOV, A.S., inzh.; VASIL'YEV, G.V.; STARIKOV, V.F.

Using overall dust suppression at the "Abashevskaia-2" mine. Ugol' 40 no.6:61-63 Je 65. (MIRA 18:7)

1. Vostochnyy nauchno-issledovatel'skiy institut po bezopasnosti rabot v gornoy promyshlennosti (for all except Kharitonov). 2. Shakhta "Abashevskaya-2" (for Kharitonov).

AUTHOR: Kharitonov, A. T. SOV/133-59-2-16/24

TITLE: Mechanical Properties of Rubber-Metal Elements in the Shock Absorbers of Automatic Couplings (Mekhanicheskiye svoystva rezino-metallicheskikh elementov v pogloshchayushchikh apparatakh avtostsepki)

PERIODICAL: Kauchuk i rezina, 1959, 18 Nr 2, pp 50-54 (USSR)

ABSTRACT: The standard equations relating stress/deformations under static and dynamic conditions for rubber sections are given in formulae (1) and (2). These are not accurate for deformations above 20% to 30% and the work is directed to finding corrections for the equations when applied to rubber elements for shock absorbers for automatic couplings in rolling stock. Static tests were made on flat, pyramidal, and annular specimens using a ring dynamometer to measure stress and direct measurement of deformation as shown in the apparatus in Fig 1. Specimens with the same form factor (volume/area), but with different shapes exhibit different force/deflection characteristics. Fig 2 illustrates the 5 minute stress/deformation curves for three shapes

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commonly used in shock absorbers. The form factor is the same for each shape but the curves differ according to the relative dimensions indicated for each shape. Further tests on rectangular specimens with a 1:1:4 ratio of sides are shown in Fig 3 where 3 stress/deformation graphs are given for rubbers of different Shor hardnesses. Each graph contains curves for different form factors. The modified relationship between the stress q and the deformation ε:

$$q = E_{comp} \frac{\varepsilon}{(1 - \varepsilon)^n} \quad kg/cm^2 \qquad (3)$$

is deduced from these where:

for Shor Hardness 70 : $n = 1.5$ $E_{comp} = 60 + 80 \cdot \phi^{2.15}$
60 : $n = 1.0$ $E_{comp} = 40 + 21 \cdot \phi^{1.6}$
40 : $n = 2.0$ $E_{comp} = 14 + 16 \cdot \phi^{1.9}$

Mechanical Properties of Rubber-Metal Elements in the Shock Absorbers of Automatic Couplings

The inset curves in Fig 3 show the relation between the modulus E and the form factor Φ. Dynamic tests were performed on the test shock absorber shown in Fig 4, under a free falling weight of 178 kg and 82 kg by a height of fall from 100 mm to 500 mm, and initial shock velocities from 1.4 to 3.14 metres/sec. The height of the assemblies tested in the shock absorbers varied from 242 to 65 mm. Oscillograms were taken on a recording oscilloscope showing force, time and deformation (Fig 5a). Stress/deformation characteristics are shown in Fig 5b and are virtually the same for all form factors, and the conclusion is that with constant shock energy, but with different speeds, the maximum deformation remains constant, at any rate at deformation speeds $d\varepsilon/dt$ from 5.8 to 48.3 %/sec. This simplifies calculations, as the internal friction may be considered to be proportional to the speed of deformation. Dynamic deformation curves, as shown in Fig 5a enable the relation

$$q_d = E_{d} \frac{\varepsilon}{(1-\varepsilon)^n} \text{ kg/cm}^2 \qquad (3')$$

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Mechanical Properties of Rubber-Metal Elements in the Shock Absorbers of Automatic Couplings

to be established, where n and E_d are related to Shor hardness:

Shor Hardness 70 : $n = 3.5$ $E_d = 95 + 65\phi^{1.98}$

60 : $n = 1.5$ $E_d = 65 + 230\phi^{1.88}$

40 : $n = 1.5$ $E_d = 38 + 82\phi^{1.37}$

There are 5 figures and 9 references, 7 of which are Soviet, 1 English and 1 German.

ASSOCIATION: Bryanskiy institut transportnogo mashinostroyeniya (Bryansk Institute of Transport Machine Construction)

NIKOL'SKIY, L.N., doktor tekhn. nauk, prof.; KHARITONOV, A.T., inzh.

Shock absorbers for automatic couplers with rubber-metal units.
Vest. TSNII MPS 18 no.5:36-39 Ag '59. (MIRA 13:1)

1.Bryanskiy institut transportnogo mashinostroyeniya.
(Car couplings)

KhARITONOV, A. T., Cand Tech Sci — (diss) "Investigation of the Operation of the Rubber-Metal Elements of the Absorbing Apparatus of Automobile Clutches," Moscow, 1960, 11 pp, 120 copies (All-Union Sci Res Institute of Railroad Transport) (KL, 47/60, 104)