

LEONOVICH, G.I., prof., doktor tehnik. nauk; DYMCHOV, G.F.

Variations of mine ventilation systems with drift collectors.
Sbor. nauch. trud. NGP no.23:83-95 '63 (MIRA 17:8)

Selecting a method of mine ventilation. Ibid. 107-111

LUGOVSKIY, Sergey Ivanovich; DYMCHUK, Gennadiy Konstantinovich;
DROBOT, Boris Yakovlevich; AVRAMCHUK, Rostislav Nikiforovich.
Prinimali uchastiye: MAR'YENKOV, V.V.; BAKIROV, U.Kh.;
NIKITIN, V.S., kand. tekhn. nauk, retsenzent; STEBAKOV, B.A.,
gorn. inzh., otv. red.

[Ventilation of mines and strip mines] Ventiliatsiia shakht i
kar'erov. [By] S.I.Lugovskii i dr. Moskva, Izd-vo "Nedra,"
1964. 306 p. (MIRA 17:5)

LUGOVSKIY, S.I., doktor tekhn.nauk, prof.

Heat exchange in deep level chambers. Sbor.nauch.trud. KGR
no. 21:102-105 '63. (MIRA 17:7)

SHKUTA, E.I.; LUGOVSKIY, S.I., doktor tekhn.nauk; OSEMYANSKIY, I.B., gornyy inzh.

Potentials of mine ventilation. Gor.zhur. no.3:26-30 Mr '65.

(MIRA 18:5)

1. Glavnyy inzh. Upravleniya gornodobyvayushchey promyshlennosti
Pridneprovskogo soveta narodnogo khozyaystva (for Shkuta).

AZARENKO, B.S., kand. tekhn. nauk; AFANAS'YEV, V.D., kand. tekhn. nauk;
 BROVMAN, M.Ya., inzh.; VAVILOV, M.P., inzh.; VERNIK, A.B., inzh.;
 GOLUBKOV, K.A.; GUBKIN, S.I., akademik [deceased]; GUREVICH, A.Ye.,
 inzh.; DAVYDOV, V.I., kand. tekhn. nauk; DROZD, V.G., inzh.;
 YEREMOLAYEV, N.F., inzh.; ZHUKEVICH-STOSHA, Ye.A., inzh.; KIRILIN,
 N.M., kand. tekhn. nauk; KOVNEV, M.V., inzh.; KOGOS, A.M., inzh.;
 KOROLEV, A.A., prof.; KUGAYENKO, M.Ye., inzh.; LASKIN, A.V., inzh.;
 LEVITANSKIY, B.A., inzh.; LUGOVSKIY, V.M., inzh.; MEYEROVICH, I.M.,
 kand. tekhn. nauk; OVCHAROV, M.S., inzh.; PASTERNAK, V.I., inzh.;
 PERLIN, I.L., doktor tekhn. nauk; POEDIN, I.S., kand. tekhn. nauk;
 ROKOTYAN, Ye.S., doktor tekhn. nauk; SAF'YAN, M.M., kand. tekhn.
 nauk; SMIRNOV, V.V., kand. tekhn. nauk; SMIRNOV, V.S.; SOKOLOVSKIY,
 O.P., inzh.; SOLOV'YEV, O.P., inzh.; SIDORKEVICH, M.A., inzh.;
 TRET'YAKOV, Ye.M., inzh.; TRISHEVSKIY, I.S., kand. tekhn. nauk;
 KHENKIN, G.N., inzh.; TSELIKOV, A.I.; GOROBINCHENKO, V.M., red.
 izd-va; GOLUBCHIK, R.M., red. izd-va; RYMOV, V.A., red. izd-va;
 DOBUZHINSKAYA, L.V., tekhn. red.

[Rolling; a handbook] Prokatnoe proizvodstvo; spravochnik. Pod
 red. E.S.Rokotiana. Moskva, Metallurgizdat. Vol.1. 1962. 743 p.

(MIRA 15:4)

1. Akademiya nauk BSSR (for Gubkin). 2. Chlen-korrespondent Akademii
 nauk SSSR (for Smirnov, Tselikov).

(Rolling (Metalwor))—Handbooks, manuals, etc.)

Lugovskoy, V.V.
LUGOVSKOY, V.V.

Additional conditions for ship rolling on waves. Trudy TSNIMF
no.7:50-71 '56. (MIRA 11:2)

(Stability of ships)

124-58-9-9910D

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 62 (USSR)

AUTHOR: Lugovskiy, V. V.

TITLE: Problems of the Nonlinear Theory of the Rolling Motion of Ships
(Voprosy nelineynoy teorii bortovoy kachki sudov)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree
of Candidate of Technical Sciences, presented to the Leningr.
korablestroit. in-t (Leningrad Shipbuilding Institute), Leningrad,
1958

ASSOCIATION: Leningr. korablestroit. in-t (Leningrad Shipbuilding
Institute). Leningrad

1. Ships--Roll

Card 1/1

LUGOVSKIY, V.V.

Differential equation for rolling in the case of a ship's
heaving with a given stability diagram. Trudy TSNIIMF no.15:
22-33 '58.

(MIRA 11:8)

(Stability of ships)

10(4), 31(5)

AUTHOR:

Lugovskiy, V. V. (Leningrad)

SOV/179-59-4-3/40

TITLE:

On Steady Resonance States in Ships Rolling in Lateral Surf

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, 1959, Nr 4, pp 22 - 28 (USSR)

ABSTRACT:

The steady resonant conditions in calm sea at lateral rolling of the ship with any form of stability diagram and any damping law are here investigated with the help of the formulas taken from the monograph by N. N. Bogolyubov and Yu. A. Mitropol'skiy (Ref 8). It is shown that in calm sea not only the zone with a wave frequency almost equal to the frequency of natural vibrations of the ship is unfavorable with respect to lateral rolling, but also the zones with a frequency amounting to twice and three times the eigenfrequency. The period of additional resonance vibrations of the ship is nearly equal to the period of rolling in calm water, while the amplitude and the phase are determined by uncomplicated formulas (2.5), (2.9), (3.7), (3.8), (3.9), (3.10) at any form of stability diagram and at any damping law occurring in practice. There are 8 figures and 9 references, 8 of which are Soviet.

SUBMITTED:

June 9, 1958

Card 1/1

LUGOVSKIY, V.V.

Study of the effect of the finite, in comparison with wave length,
lateral dimensions of a ship on the disturbing moment during rol-
ling. Trudy LKI no.26:111-117 '59. (MIRA 14:9)

1. Kafedra teorii korablya Leningradskogo korablestroitel'nogo
instituta.

(Stability of ships)

LUGOVSKOY, V.V.

"On the Study of Hydrodynamic Forces in Limited Amplitude Pitching."

report presented at the 11th Annual Scientific Technical Conference on Ship Theory, organized by the Central Administration of the Scientific-Technical Society of the Shipbuilding Industry, 13-15 December 1960.

LU GOVSKI, Y. V.

Activity of the Scientific-Technical Society of
 the Shipbuilding Industry (Papers Presented at the
 Tenth Scientific-Technical Conference on Ship Theory
 Substantively, No 1, 1960

O. A. Pironov, Cand Tech Sci
I. I. Malozemich, Dr. Tech Sci

Papers presented:

- O. A. Pironov, Cand Tech Sci, "On the Effect of Hard-Over Rudder with Limited [Ego-por-stoy] Motion on an Irregular Sea."
- I. I. Malozemich, and A. I. Yousmenskiy, Cand Tech Sci, "Investigation of Methods of Anticipating (Short-Term Forecasting) Sailing of a Ship on a Swell on the Basis of the Theory of Interpolation of Random Processes."
- Y. V. Izrael'skiy, Cand Tech Sci, "Theory and Approximate Calculation of Ship Roll with a Given Stability Diagram on Courses Oblique to the Swell."
- A. B. Afremov, Engineer, T. B. Yeliseyev, Cand Tech Sci, "Calculation of Ship Controllability Based on Approximate Calculation of the Influence of Moment of Inertia."
- A. D. Gorkun, Engineer, "Tests of River Ships Equipped with Movable Kort Nozzles."

LUGOVSKY, V. V.

"The application of the methods of the nonlinear oscillation theory to the analysis of ship oscillations in a seaway."

Paper presented at the Intl. Symposium on Nonlinear Vibrations, Kiev, USSR, 9-19 Sep 61

Politechnical Institute, Leningrad

LUGOVSKIY, V.V., kand.tekhn.nauk

Study of hydrodynamic forces during ultimate amplitude rolling.
Trudy TSNIIMF 7 no.35:40-48 '61. (MIRA 14:12)
(Ships--Hydrodynamic impact)

LUGOVSKIY, Vitaliy Vasil'yevich; STUPAKOVA, L.A., red.; TIKHONOVA, Y
Ye.A., tekhn. red.

[Standards of the stability of merchant ships in various
countries] O normirovani ostoichivosti grazhdanskikh mor-
skikh sudov v raznykh stranakh. Moskva, Izd-vo "Morskoi tran-
sport," 1963. 180 p. (MIRA 16:7)
(Stability of ships--Standards)

LUGOVSKIY, V.V., kand. tekhn. nauk; FADDEYEV, Yu.I., kand. tekhn. nauk

Calculating the rolling of ships using the nomograms of a
series of model experiments. Sudostroenie 29 no.8:26-30 Ag '63.
(MIRA 16:10)

(Ships--Hydrodynamics) (Ship models--Testing)

L 36847-66 EMT(m)/EWP(w) IJP(c) EM/WW

ACC NR: AT6014313 (N) SOURCE CODE: UR/2752/63/000/049/0036/0073

AUTHOR: Lugovskiy, V. V. (Candidate of technical sciences) *SI*

ORG: none *B+/*

TITLE: Hydrodynamic investigation of the mutual effect of longitudinal and sideways rolling of ships and the swell of the sea

SOURCE: Leningrad. Tsentral'nyy nauchno-issledovatel'skiy institut morskogo flota. Trudy, no. 49, 1963. Gidromekhanika sudna (Hydromechanics of ships), 36-73

TOPIC TAGS: marine engineering, vibration theory, boundary layer theory

ABSTRACT: The article is an attempt to study the mutual effect of longitudinal and sideways rolling of ships moving at any arbitrary course angle with respect to the swell of the sea, by strict and generalized methods of the theory of rolling and the theory of nonlinear vibrations. Linearization of the boundary conditions for the free surface of a liquid makes it possible to obtain generalized relationships for the hydrodynamic forces acting on the moving and rolling ship. The formulas found for the inertial damping, hydrostatic, and agitating forces are brought, in the article, into a mathematical

Card 1/2

L 36847-66

ACC NR: AT6014313

form which permits their practical use. Simplification and solution of the system of differential equations obtained for the rolling of a ship makes it possible to clarify the effect of the interconnection of vertical and sideways rolling of a ship on the amplitude factors. Orig. art. has: 119 formulas.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 025/ OTH REF: 009

nd
Card 2/2

L 05659-87 EWT(m)/EWP(w) IJP(c) EM/WW

ACC NR: AT6025571 (N)

SOURCE CODE: UR/2752/66/000/072/0032/0041

AUTHOR: LUGOVSKIY, V. V. (Doctor of technical sciences)

34
B+1

ORG: None*

TITLE: Approximate determination of the damping coefficients for heaving and pitching of finite amplitude

SOURCE: Leningrad. *Tsentral'nyy nauchno-issledovatel'skiy institut morskogo flota, Trudy, no. 72, 1966. Gidromekhanika sudna (Hydromechanics of ships), 32-41

TOPIC TAGS: ship, vibration damping, ^{shipbuilding} engineering, motion mechanics

ABSTRACT: Approximate formulas are derived for the damping coefficients of forced heaving and pitching of a Michell vessel on the surface of a heavy, ideal, incompressible liquid at zero velocity. The formulas are derived with respect to two systems of coordinates, one coinciding with the undisturbed surface of the liquid and the other connected to the oscillating vessel. While the expressions given in this paper are for heaving accompanied by pitching, a similar method may be used for deriving approximate formulas for determining the damping coefficients of pitching accompanied by heaving. However, these formulas are extremely complex and less convenient for practical purposes than those given in this article. Numerical values are given for the complex coefficients appearing in the formulas which give satisfactory results for maritime cargo vessels. Orig. art. has: 4 figures, 34 formulas.

SUB CODE: 13/ SUBM DATE: None/ ORIG REF: 004/ OTH REF: 004

Card 1/1

UDC: 629.12;532.5.641

ACC NR: AR7000681

(N)

SOURCE CODE: UR/0398/66/000/011/A014/A015

AUTHOR: Lugovskiy, V. V.

TITLE: Approximate determination of damping coefficients for vertical rolling and pitching at a finite amplitude

SOURCE: Ref. zh. Vodnyy transport, Abs. 11A85

REF SOURCE: Tr. Tsentr, n.-i. in-ta morsk. flota, vyp. 79, 1966, 32-41

TOPIC TAGS: shipbuilding engineering, forced vibration, vibration damping

ABSTRACT: Approximate formulas are derived for Michel's coefficients for the damping of a vessel's vertical rolling and pitching, based on the calculation of finite amplitudes of vibrations under boundary conditions. A vessel's forced vertical vibrations and pitching on the surface of an ideal incompressible gravity solution at zero speed are investigated. The vessel's hull form is expressed as a function of its waterline and midship frame forms, assuming them to be continuous and limiting functions with zero first and second derivatives on their countour boundaries. Considering the vessel's sides to be vertical within draught variations, and its rolling and pitching in calm water and regular waves to be nearly harmonic, numerical evaluation are obtained which show that the derived formulas for the damping coefficients provide good results for seagoing transport vessels with a characteristic water line form in typical vertical rolling and pitching conditions.

SUB CODE: 13/ SUBM DATE: none

Card 1/1

UDC: 629.12:532.5.041

ACC NR: AM6016145

(N)

Monograph

UR

Lugovskiy, Vitaliy Vasil'yevich

Nonlinear problems on the seaworthiness of ships (Nelineynyye zadachi morokhodnosti korablya) Leningrad, Izd-vo "Sudostroyeniye", 66. 0234 p. illus., biblio. 1,900 copies printed.

TOPIC TAGS: ship, hydrodynamics, shipbuilding engineering

PURPOSE AND COVERAGE: The book presents solutions to nonlinear problems related to the seaworthiness of ships in relation to rolling, and describes methods for the calculation of the characteristics of rolling, based on the solutions presented. The book may be used as a textbook on the theory of rolling by graduate and undergraduate students at shipbuilding institutes and faculties, and may serve as an aid to workers at scientific research and planning organizations of the shipbuilding industry.

TABLE OF CONTENTS [abridged]:

Preface - - 3

Ch. I. General problems related to the motion of ships in waves - - 17

Ch. II. Hydromechanical problems in the nonlinear theory of rolling - - 31

Ch. III. Nonlinear theory of rolling of ships in regular waves - - 69

Card 1/2

UDC: 629.12.01

ACC NR: AM6016145

- Ch. IV. Methods for the calculation of the amplitude of roll - - 106
- Ch. V. Some problems in the nonlinear theory and the calculation of the amplitude of pitch - - 150
- Ch. VI. Nonlinear problems in the interrelation of different types of rolling motions of ships in waves - - 217
- Bibliography - - 227

SUB CODE: 13 / SUBM DATE: 10Jan66 / ORIG REF: 108 / OTH REF: 042

Card 2/2

LUGOVSKOY, B.I.

Technology

Luminiscent illumination of buildings. Moskva, Gos. energ. izd-vo, 1950.

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

CHUMAKOV, Yu.I.; LUGOVSKOY, E.V.

Mixture of isomeric phenylpyridines. Metod.poluch.khim.reak. 1
prepar. no.7:41-44 '63. (MIRA 17:4)

1. Kiyevskiy politekhnicheskij institut.

LUGOVSKOY, F.

Improvement of working methods and conditions in factories. Mest.-
prom.i khud.promys. 2 no.7:5 J1 '61. (MIRA 15:1)

1. Sekretar' Stalingradskogo oblastnogo komiteta profsoyuza rabochikh
mestnoy promyshlennosti i kommunal'nogo khozyaystva.
(Volgograd--Factories)

LUGOVSKOY, G.P.

USSR/Cosmochemistry. Geochemistry. Hydrochemistry..

D

Abs Jour : Referat. Zhurnal Khimiya. No 6, 1957, 18914.

Author : B. Ye. Karskih G.P. Lugovskoy.

Inst : All-Union Scientific Research Institute for Asbestos, Mica, Asbestos-Cement Products and Projection of Construction of Mica Industrial Concerns.

Title : Method of Studying and Characteristics of Inclusions in Muscovite of Mamsko-Chuyskiy Region

Orig Pub. : Tr. Vses. N.-l. In-t. Asbesta, Slyudy. Asbastotsement Izdeliy i Projektir. Str-va Predpriyatiy Slyud. Prom-sti, 1956. Vyp. 4, 39-90.

Abstract : No abstract.

Card 1/1

-26-

LUGOVSKOY, G.P.

Scorzalite from pegmatites in Siberia. Zap. Vses. min. ob-va 94
no. 2:212-217 '65.

(MIRA 18:5)

GORZHEVSKAYA, S.A.; LUGOVSKOY, G.P.; SIDORENKO, G.A.

First find of samiresite in the Soviet Union. Dokl. AN SSSR 162
no.5:1148-1151 Je '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'ncgo syr'ya.
Submitted March 17, 1964.

LUGOVSKOY, I.G.

Modernization of the vacuum plant of the Odessa Petroleum
Refinery. Khim.i tekhn.topl.i masel 5 no. 11:42-46 N '60.
(MIRA 13:11)

1. Odesskiy neftepererabatyvayushchiy zavod.
(Odessa--Petroleum refineries--Equipment and supplies)

LUGOVSKOY, K. G.

Lugovskoy, K. G. - "Bases of distribution and specialization of the socialist agricultural industry," Trudy Sarat. ekon, in-ta, Vol II, 1949, p. 183-218

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

ИЗВЕСТИИ, К. 6.

32560. Glyt vydalenija proizvedstvennykh sel'skokhozyays'vennykh zon. (Na Irinere Srat. ogl.) Sots. Khos-vo, 1949, No. 10, s. 4-11

SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

LUGOVSKOY, K. (r)

Agriculture & Plant & Animal Industry

Postwar advance of agriculture in the Saratov Province. Saratovskoe obl. gos. izd-vo, 1950.

Monthly List of Russian Accessions. Library of Congress, April, 1952. UNCLASSIFIED.

LUGOVSKOY, K. (Saratov)

Economic problems of the intensification of agriculture. Vop. ekon.
no.12:144-148 D '60. (MIRA 13:12)
(Agriculture--Economic aspects)

LUGOVSKOY, Konstin Grigor'yevich; DROZDOV, B.T., red.; GERASIMOVA, Ye.S.,
tekhn. red.

[Problems of the planned development of agriculture in an economic
region] Voprosy planomernogo razvitiia sel'skogo khoziaistva v
ekonomicheskom raione. Moskva, Gos. izd-vo planovo-ekon. lit-ry,
1961. 113 p. (MIRA 14:11)

(Agriculture)

LUGOVSKOY, Konstantin Grigor'yevich; RYBAKOVA, V.D., red.;
GERASIMOVA, Ye.S., tekhn.red.

[Economics of socialist agriculture] Ekonomika sotsialisti-
cheskogo sel'skogo khoziaistva. Moskva, Ekonomizdat, 1963.
669 p. (MIRA 16:12)
(Agriculture--Economic aspects)

LUGOVSKOY, M.P.

Getting the population and public organizations to cooperate in
sanitary and prophylactic work. Zdrav.Kazakh. 16 no.12:39-42 '56.
(PUBLIC HEALTH) (MLRA 10:2)

LUGOVSKOY, M. V.

29737

Myekhanizatsiya stroityel'stva-nyeotlozhnoye myeropriyatiye diya Dal'nyeyshyego
razvitiya syel'skoy elyektifikatsii. Bidrotyekhnika i myelioratsiya, 1949,
No. 3, S. 67-78

So: Letogis' No. 40

LUGOVSKOY, M.V.

N/5

663.21

Ekspluatatsiya Gidromekhanicheskogo Oborudovaniya Sel'skikh Gidroelektros- .L9
tantsiy (Operation of Hydraulic Equipment of Rural Hydroelectric Power
Stations (By) M. V. Lugovskiy i A. A. Glebovich. Moskva, Sel'khozgiz, 1953.

255 p. Diagr., Tables.

"Literatura": p. 254.

BCRODZYUK, G.G.; STEPANOV, G.N.; DRIATSKIY, N.M.; IONTOV, L.Ye.; KOVALEV, S.M.; BLOKHIN, A.S.; DVORTSOV, L.D.; LUGOVSKOY, N.Ye.; MERKULOV, A.G.; SMIRNOV, B.P.; ROGINSKIY, E.M.; BALAN-IL'YEVSKAYA, I.A.; IZRAILIT, S.G.; GRANAT, M.B.; ZARIN, S.A.; *otv.red.*; FEDOROVSKAYA, L.N., *red.*; MARKOCH, K.G., *tekhn.red.*

[Multichannel apparatus for high-voltage telephony on overhead lines and cables] Mnogokanal'naya apparatura vysokochastotnogo telefonirovaniya po vozduzhnym i kabel'nym liniyam svyazi. Moskva, Gos.izd-vo lit-ry po voprosam svyazi i radio, 1959. 511 p.

(MIRA 14:1)

(Telephone--Equipment and supplies)

BLOKHIN, A.S.; BORODZYUK, G.G.; LESHCHINSKIY, A.A.; OKSMAN, A.K.;
KOSMINSKIY, O.F.; MANUSHKIN, A.Ye.; MILEVSKIY, Yu.S.;
DRIATSKIY, N.M.; VASIL'YEV, V.V.; L'VOVICH, A.A.;
ORLEYEVSKIY, M.S.; MOROZ, I.A.; OKSIAN, A.K.; KNEL', G.S.;
SOROKIN, M.F.; BUTLITSKIY, I.M.; VASIL'YEV, L.N. [deceased];
GINTS, Yu.R.; VASIL'YEV, G.K.; LUGOVSKOY, N.Ye.; KIRILLOV,
Ye.V.; STRUYKINA, N.S.; LEVINOV, K.G.; BLOKHIN, A.S., otv.
red.; GURIN, A.V., red.; SLUTSKIN, A.A., tekhn. red.

[K-1920-frequency telephone system] Sistema vysokochastotnogo
telefonirovaniya K-1920; informatsionnyi sbornik. [By] A.S. Blokhin
i dr. Moskva, Sviaz'izdat, 1962. 319 p. (MIRA 16:4)
(Telephone)

LUGOVSKOY, P. V., Engineer--KHORCKHONCV, V. N., Engineer

"Electric Fusing of Cutting Tools with Scrap High-Speed Steel."
Stanki I Instrument, 17, Nos. 10-11, 1946.

BR-52059019

L 41708-65 EWG(j)/EMP(e)/EWF(m)/EPF(c)/EWP(i)/EPR/T/ENP(b)/EWA(m)-2 Pr-4/
ACCESSION NR: AR5008411 Ps-4 3d/WH UR/0058/65/000/001/V027/V027

SOURCE: Ref. zh. Fizika, Abs. LV192

AUTHORS: Azimov, S. S.; Abdullayev, A. M.; Lugovskoy, V. B.; Myalkovskoy, V. M.;
Tokarskiy, V. B.; Yuldashbayev, T. S.

TITLE: Study of the inelasticity of the interaction of particles with heavy nuclei at energies 70 - 700 BeV

CITED SOURCE: Dokl. AN UzSSR, no. 4, 1964, 18-21

TOPIC TAGS: inelastic scattering, particle interaction, inelasticity coefficient, heavy nucleus interaction, cosmic particle

TRANSLATION: The authors investigated the dependence of the inelasticity coefficient (\bar{K}) on the primary energy in the primary-energy interval 70 - 700 BeV. The measurements were made with the aid of a calorimeter consisting of Cerenkov and scintillation counters, with layers of iron and lead absorbers placed between the counters. Showers were selected with energies larger than 60 BeV. The showers:

Card 1/2

L 41708-65

ACCESSION NR: AR5008411

were broken down into a series of energy intervals, in each of which the average was obtained of the coefficient of inelasticity for the formation of π^0 mesons (\bar{K}_0). Taking into account the experimental corrections, the average value of the inelasticity of the interaction between the particles and iron nuclei, in the energy region $E_0 \geq 3 \times 10^{11}$, was found to be $\bar{K}_{\pi^0}^{\text{Fe}} = 0.22 \pm 0.2$, consequently $K^{\text{Fe}} = 3\bar{K}_{\pi^0}^{\text{Fe}} = 0.66 \pm 0.06$. The coefficient of inelasticity for the interaction with carbon nuclei was measured by introducing graphite filters into the calorimeter, and was found to be $K^{\text{C}} = 0.48 \pm 0.06$. The average value of the inelasticity coefficient for the interaction between cosmic particles and iron nuclei, \bar{K}^{Fe} , depends little on the energy of the incident particles in the interval 70 - 700 BeV. The data obtained agree with the concept of successive collisions of the primary particles with the individual nucleons of complex nuclei in the energy region $E_0 \geq 10^{11}$ eV. Ya. M.

SUB CODE: NP

ENCL: 00

ml
Card 2/2

L 40707-65 EWG(j)/EWT(m)/FCC/T IJP(c)

ACCESSION NR: AP5012316

UR/0048/64/028/011/1773/1775

AUTHOR: Azimov, S. A.; Abdullayev, A. M.; Lugovskoy, V. B.; Myalkovskiy, V. M.; Tokarskiy, V. B.; Yuldashbayev, T. S.

TITLE: Inelasticity of the interaction of cosmic particles with light and heavy nuclei / Report of All-Union Meeting on Cosmic Rays Physics, held in Moscow from October 4 to 10, 1963 /

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 28, no. 11, 1964, 1773-1775

TOPIC TAGS: cosmic ray¹⁹, particle interaction, nucleus, nuclear particle

ABSTRACT: The relationship between the coefficient of inelasticity and primary energy was studied in the interval from 70 to 700 Bev using the calorimeter of a Cerenkov counter. Measurements were made at the mountain station of the Institute of Nuclear Physics of the Uzbek SSR Academy of Sciences in Kum-Bel' pass at an altitude of 3200 meters above sea level. The coefficient was found to be only slightly dependent on the energy of the incident particles in this energy interval. Values of the coefficient are given for iron and carbon. Orig. art. has: 1 figure, 2 formulas, and 1 graph.

Card ;1/2

L 40707-65

ACCESSION NR: AP5012316

ASSOCIATION: Institut yadernoy fiziki Akademii nauk UzSSR (Institute of Nuclear Physics, Academy of Sciences, UzSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: AA, NP

NO REF SOV: 002

OTHER: 001

JPRS

Card 2/2 MB

S/137/61/000/001/028/043
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1961, No. 1, p. 26, # 12h192

AUTHOR: Lugovskoy, V.M.

TITLE: About the Effect of External Zones on the Deformation Seat

PERIODICAL: V Sb. "2-ya Nauchno-tekhn. konferentsiya aspirantov i mladsh.nauchn. sotrudnikov (In-t machinoved. AN SSSR), Vol. 2", Moscow, 1959, pp. 3 - 13

TEXT: The author presents a quantitative evaluation of the effect of external zones on the deformation seat in forging and rolling. Calculations are given to determine the effect of external zones on the mean specific deformations pressure in the case of compressing a strip by a smooth die and in the case of compressing a bar by two smooth rigid dies. It is shown that the theoretical values obtained on the basis of the formulae derived are in a satisfactory agreement with experimental data. There are 7 references. L. G. ✓

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

LUGOVSKOY, V. M.

Cand Tech Sci - (diss) "Study of the stressed state in deformation with small contact surfaces." Moscow, 1961. 12 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Machine-Tool Inst imeni I. V. Stalin); number of copies not given; price not given; (KL, 7-61 sup, 240)

ZAROSHCHINSKIY, M.L., doktor tekhn.nauk, prof.; LUGOVSKOY, V.M., inzh.

Some works on the theory and technological processes of metal rolling.
Izv.vys.ucheb.zav.; mashinostr. no.8:102-106 '61. (MIRA 15:1)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.
(Rolling (Metalwork))

LUGOVSKOY, V. M.

S/122/61/000/007/005/007
D209/D304

AUTHORS: Tselikov, A.I., Lugovoskoy, V.M., and Tret'yakov, Ye.M.

TITLE: Basic theory of diametrical rolling and cold rolling
using two and three roller mills

PERIODICAL: Vestnik mashinostroyeniya, ⁴¹/₁no. 7, 1961, 49 - 54

TEXT: The authors elaborate the problem of using three roller mills as opposed to two roller mills, for the cold rolling of metals. This method, they claim, can be used for the manufacture of cylindrical objects with diameters ranging from 18 to 20 mm, giving a very low surface impurity product. The authors make the following assumptions: The contact between the cylindrical work piece and the rollers takes place along a straight line, or in other words, the resultant displacement is the sum of the elementary rotations through an infinitely small angle. The plastic deformation of the material is shown in Fig. 1. The authors first consider rolling by using only two rollers, and then Fig. 1 will consist of a num-

Card 1/6

Basic theory of diametrical ...

S/122/61/000/007/005/007
D209/D304

ber of triangles representing the various zones of plastic deformation due to the pressure exerted on the work piece. They state that these zones of plastic deformation must satisfy the kinematic conditions existing at the boundaries of the plastic deformation zone. This approach is recommended by the authors since it gives the upper limit of the pressure at the contact points, as opposed to the static consideration of loading which would only give the lower limit. They consider the equilibrium of the right hand portion of Fig. 1 to obtain an expression for the contact pressure. In the case of rolling with three rollers, and for section I-I

$$\sigma_y = 2k \left[-\frac{\eta\sqrt{3}+2}{\eta\sqrt{3}} \left(1,08 \left| \ln \frac{2}{\eta\sqrt{3}+2} \right| - 0,02 \right) + 1,3 \sqrt{\eta\sqrt{2}-0,1+0,26} \right]. \quad (21)$$

holds, where σ_y - the pressure in I-I; k - plastic constant and $\eta = 2r/b$ (b = height of contact). To utilize the equations obtai-

Card 2/6

Basic theory of diametrical ...

S/122/61/000/007/005/007
D209/D304

ned, the area of contact has to be calculated. In the case of hot rolling this is given by

$$b = \sqrt{\frac{2Rr}{R+r} \Delta r},$$

where R - roller radius, r - radius of the work piece and Δr deformation due to rolling. It is not valid for the cold rolling of metals because it does not take into account the elastic deformation taking place between the rollers and the metal. Therefore, to obtain a value for B, Fig. 4 is used to illustrate the zones of deformation. Δ_1 and Δ_2 are the local radial elastic deformations of the roller and work piece respectively. In order that the work piece be compressed by an amount Δ_r its center O_1 must move to position O_2 by a distance equal to $\Delta_1 + \Delta_2$.

$$b = b_1 + b_2 = \sqrt{\frac{2Rr}{R+r} \Delta r + b_2 + b_2} \quad (24)$$

Card 3/6

Basic theory of diametrical ...

S/122/61/000/007/005/007
D209/D304

gives the resultant length of contact taking into account elastic deformation. If the absence in symmetry is neglected

$$b_2 \approx \sqrt{4q(k_1 + k_2) \frac{Rr}{R+r}} \quad (25)$$

applies, where q is the pressure per unit length of the cylinder, and k_1 , k_2 are constants, depending on the material of the work piece and roller. $q = 2b_2 p$ shows the relationship between p and q . By putting this value of q in Eq. (25)

$$b_2 \approx 8(k_1 + k_2) \frac{Rr}{R+r} p \quad (26)$$

is obtained. The formation of cavities in the center of the cylinder could be attributed to the very large stresses developing at the boundaries of the plastic regions. Also

$$\sigma_y = 2k \left(\ln \frac{\eta_r}{\eta_0} - \frac{1}{\eta_0} + 1 \right). \quad (19)$$

Card 4/6

Basic theory of diametrical ...

S/122/61/000/007/005/007
D209/D304

shows that the maximum tensile stresses occur at the center of the work piece. When using three rollers a cavity of diameter A (Fig. 2) is formed. The authors emphasize that that annular compression reduces the possibility of cavity formation in the center of the work piece, and, if enough tension is developed in the work piece, failure does not occur. Peeling is a great disadvantage of the cold rolling process, and this could be eliminated by using work pieces with smooth surfaces. This method was successful when using steel types 20, 45, УХ (ShKh)9, ShKh15, Y(U)12 and U8. The maximum surface area reduction was 75 %. Cold rolling greatly increases the strength of metals. The percentage reduction in surface area and are the yield stress of steels ShKh9 and U8. There are 10 figures, and 9 references: 8 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: S. Jonson Identification and Forging and Action of Nasmith Anvil, "The Engineer", 1958, v. 205, N5328.

Card 5/6

LUGOVSKOY, V.M.

37

PHASE I BOOK EXPLOITATION

504/5985

Rokotyan, Ye. S., Doctor of Technical Sciences, ed.

Prokhatnoye proizvodstvo; spravochnik (Rolling Industry; Handbook) v. 1. Moscow, Metallurgizdat, 1962. 743 p. Errata slip inserted. 9250 copies printed.

Authors of this volume: B. S. Azaronko, Candidate of Technical Sciences; V. D. Afanas'yev, Candidate of Technical Sciences; M. Ya. Brovman, Engineer; M. P. Vavilov, Engineer; A. B. Vernik, Engineer; K. A. Golubkov, Engineer; S. I. Gubkin, Academician, Academy of Sciences USSR; A. Yo. Gurovich, Engineer; V. I. Davydov, Candidate of Technical Sciences; V. G. Drozd, Engineer; N. F. Yermolayev, Engineer; Yo. A. Zhukovich-Stopha, Engineer; N. M. Kirilin, Candidate of Technical Sciences; M. V. Kovynov, Engineer; A. M. Kogos, Engineer; A. A. Korolev, Professor; M. Ye. Kugayenko, Engineer; A. V. Laskin, Engineer; B. A. Levitanskiy, Engineer; V. M. Lugovskoy, Engineer; I. M. Moyerovich, Candidate of Technical Sciences; M. S. Ovcharov, Engineer; V. I. Pantornak, Engineer; I. L. Perlin, Doctor of Technical Sciences; I. S. Pobedin, Candidate of Technical Sciences; Ye. S. Rokotyan, Doctor of Technical Sciences; M. M. Saf'yan, Candidate of Technical Sciences; V. V. Smirnov, Candidate of Technical Sciences; V. S. Smirnov, Corresponding Member, Academy of Sciences USSR; O. P. Sokolovskiy,

Card 1/2

32

Rolling Industry; Handbook

SOV/5985

Engineer; O. P. Solov'yev, Engineer; M. A. Sidorkevich, Engineer; Ye. M. Tret'yakov, Engineer; I. S. Trishovskiy, Candidate of Technical Sciences; G. N. Khenkin, Engineer; and A. I. Tsolikov, Corresponding Member, Academy of Sciences USSR. Introduction: A. I. Tsolikov, Corresponding Member, Academy of Sciences USSR; Ye. S. Ptokotyán, Doctor of Technical Sciences; and L. S. Al'shevskiy, Candidate of Technical Sciences.

Eds. of Publishing House: V. M. Gorobinchenko, R. M. Golubchik, and V. A. Rynov;
Tech. Ed.: L. V. Dobuzhinskaya.

PURPOSE: This handbook is intended for technical personnel of metallurgical and machine-building plants, scientific research institutes, and planning and design organizations. It may also be useful to students at schools of higher education.

COVERAGE: The fundamentals of plastic deformation of metals are discussed along with the theory of rolling and drawing. Methods of determining the power consumption and the forces in rolling with plane surface or grooved rolls are .

Card 2/12

Rolling Industry; Handbook

SOV/5985

- 3. Position of the no-slip section and the forward-slip section 73
- 4. Distribution of deformation along the width of the rolled metal section and the spread 76

- Ch. 5. Forces in Longitudinal Rolling (Ye. S. Rokotyan) [Abridged]
- 1. Formulas for determining the pressure of metal on rolls 80
- 2. General method of determining the average specific pressure of metal on rolls by theoretical formulas 96
- 3. Determination of coefficients and parameters included in formulas for calculating the pressure of metal on rolls 97
- 4. Method of torque calculation 116
- 5. Determination of forces at continuous billet mills (M. Ya. Brovna) 124
- 6. Determination of forces in rolling with square-shaped grooves (V. M. Lugovskoy, Ye. Tretyakov) 127

- Ch. 6. Power Consumption in Rolling (Ye. S. Rokotyan) [Abridged]

Card 7/19

BELOV, Yu.M. (Leningrad); KASHEVSKIY, N.P. (Leningrad);
Prinimali uchastiye: SINYUKOV, F.P., inzh.; MUL'KHANOV, N.I., inzh.;
LUGOVSKOY, V.M., tehnik; TABARENKOV, K.I., tehnik;
PETUKHOV, V.V., tehnik

Hard facing of iron mill rolls with a ribbon electrode.
Avtom.svar. 15 no.10:71-77 0 '62. (MIRA 15:11)
(Rolls (Iron mills))
(Hard facing)

CHERKINSKIY, Yu.S., kand. tekhn. nauk; LUGOVSKOY, V.M., inzh.;
MILOVZOROV, A.K., arkhitekter

Polymeric gypsum-cement compositions for the finish of buildings.
Prom. stroi. 43 no.10:30-31 '65. (MIRA 18:11)

LUGOVSKOY, V.V., inzh.

Some theoretical principles of rock cementation. Shakht. stroi.
no.5:4-7 '58. (MIRA 11:6)

1. Kuznetskiy nauchno-issledovatel'skiy ugol'nyy institut.
(Rocks--Permeability) (Concrete coatings)

LUGOVSKOY, V.V., inzh.

Using nuclear radiation for the control of rock cementation.
Shakht. stroi. no.8:10-13 Ag '58. (MIRA 11:9)
(Mining engineering) (Radioisotopes--Industrial applications)
(Grouting)

AUTHOR: Lugovskoy, V.V., Engineer SOV-118-58-10-4/16

TITLE: To Improve the Technique of Opencast Mining in Kuzbass (So-
vershenstvovat' tekhnologiyu na ugol'nykh razrezakh Kuzbassa)

PERIODICAL: Mekhanizatsiya trudoy&mkikh i tyazh&lykh rabot, 1958,
Nr 10, pp 12 - 15 (USSR)

ABSTRACT: Due to a wrong initial approach by the planning institutes
of the region to the problem of opencast mining in the
Kuzbass, many mines must now be reconstructed, to exploit
layers located at greater depths. Moreover, the problem of
exploiting sloping layers was never satisfactorily solved.
Serious consideration must be given to solve these problems
without a drop in production. Until now the opencast work-
ing of upper layers was done by drag-line excavators. Dump
terraces were formed at the boundaries of the mines. These
drag-line excavators cannot be used when steeply sloping
layers are exploited and a new type with improved parameters
must be manufactured. With the switch to deeper layers, the
problem of transportation of the stripped rocks becomes more
acute: 30 to 35,000,000 cubic m of rocks must be moved an-
nually. This exceeds by more than 10 times the volume of
rocks removed by trucks and railways in 1957. The problem

Card 1/2

SOV-118-58-10-4/16

To Improve the Technique of Opencast Mining in Kuzbass

of creating new dumping terraces is also urgent. The author criticizes the working of railway transportation from mines. The system of utilization of excavators must also be changed: less than 50% of the excavators used, are used in coal extraction. There are 2 diagrams and 1 table.

1. Coal--Production 2. Mining engineering--USSR 3. Rock--Handling

Card 2/2

LUGOVSKOY, V.V., inzh.

Bolt anchoring in Norwegian and Swedish mines. Shakht.stroi. no.2:
29-30 F '59. (MIRA 12:3)

1. Kuznetskiy Nauchno-issledovatel'skiy ugol'nyy institut.
(Norway--Mine roof bolting)
(Sweden--Mine roof bolting)

SOV/118-59-3-16/22

88(1)
AUTHOR:

Lugovskoy, V.V., Engineer

TITLE:

On the Exploitation Techniques of Cutting Strata in Open Coal Mining in the Kuzbass (O tekhnike vvyemki svit plastov pri otkrytoy razrabotke uglya v Kuzbasse)

PERIODICAL:

Mekhanizatsiya i avtomatizatsiya proizvodstva, 1959, Nr 3, pp 48-51 (USSR)

ABSTRACT:

The Kuzbass has actually about one hundred fields suitable for open coal mining. When organizing open mining, one must consider that there are various seams, both thin and thick, having different inclination angles and being at varying, but considerable depths, depending on the wealth of the mines. Various machines have been designed according to the different geological conditions. The most effective and rational mining systems are: The worm-drilling system with hydromechanization, the plain hydraulic system and the mining system with various special combines preceded by loosening of coal, drilling and blasting operations. The practical appli-

Card 1/2

SOV/118-59-3-16/22

On the Exploitation Techniques of Cutting Strata in Open Coal Mining
in the Kuzbass

cation of such technical means for working of coal in
open mines, will considerably improve the technical-
economical conditions of work in the mines in the
Kuzbass. There are 4 diagrams and 3 tables.

Card 2/2

LUGOVSKIY, V.V., inzh.

Kuznetsk Basin needs new types of excavators. Stroi.i dor.
mashinostr. 4 no.8:13-14 Ag '59. (MIRA 12:12)
(Kuznetsk Basin--Excavating machinery)

LUGOVSKOY, V.V., inzh.

Rock cementation theory. Izv.vys.ucheb.zav.: gor.zhur. no.8:
13-21 '59. (MIRA 13:5)

1. Kuznetskiy nauchno-issledovatel'skiy ugol'nyy institut.
(Grouting)

LUGOVSKOY, V. V.

Rock cementation practices (from "Gluckauf" no. 47/48, 1958).
Shakht.stroi. no. 9:30-31 S '59. (MIRA 12:12)
(France--Tunneling)

LUGOVSKOY, V.V., gorn.inzh.

Prospects in mining engineering and economic efficiency of open-cut
working steep pitching Kuznetsk Basin ore beds without transportation.
Ugol' 34 no.2:34-37 F '59. (MIRA 12:4)
(Kuznetsk Basin--Strip mining)

SUZDAL'TSEV, V.D.; LUGOVSKOY, V.V., gornyy inzh. (g. Prokop'yevsk)

"Importance of seasonal baring operations in opencut mines" by
N.A.Malysheva. Reviewed by V.D.Suzdal'tsev, V.V.Lugovskoi.
Ugol' 35 no.1:60-61 Ja '60. (MIRA 13:5)

1. Glavnyy inzhener Yergachinskogo rudnika (for Suzdal'tsev).
(Strip mining) (Malysheva, N.A.)

LUGOVSKOY, Vladimir Vasil'yevich, gornyy inzh.; BALIBALOV, I.A., red.;
RUDINA, G.V., tekhn. red.

[Improvement of the strip mining of coal in the Kuznetsk Basin]
Sovershenstvovanie otkrytoi dobychi uglia v Kuzbasse. Kemerovo,
Kemerovskoe knizhnoe izd-vo, 1960. 43 p. (MIRA 15:11)
(Kuznetsk Basin—Strip mining)

T 31512-66 EJT(1)/EJT(m)/EWP(c)/T IJP(c) JAJ

ACC NR: AP6009061 SOURCE CODE: UR/0207/66/000/001/0124/0126

AUTHOR: Kuznetsov, V. M. (Novosibirsk); Lugovtsov, B. A. (Novosibirsk); Sher, Ye. I. (Novosibirsk)

46
47
8

ORG: none

TITLE: The motion of gas bubbles in a fluid affected by a temperature gradient

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 1, 1966, 124-126

TOPIC TAGS: temperature dependence, gas bubble, gas mechanics, viscous fluid, temperature gradient

ABSTRACT: The authors investigate the motion of a gas bubble which is due to the action of surface tension in a weightless viscous fluid with a temperature gradient. A theory is proposed for the steady-state motion of a bubble in a field with a constant temperature gradient in the case of small Reynolds numbers. The experimental results presented agree qualitatively with the theory. It is noted that in view of the difficulties due to the presence of gravity, which caused convective motion of the liquid and the emersion of the bubbles, the experiment is qualitative in nature. The results of the experiment are given in a figure. The bubble at rest started moving 5-6 sec after heating began, and, expanding as a result of vaporization, moved toward the higher temperature. Thus, the experiment agrees with the theory. The editor remarks in a footnote that prior to publication of this article, the

Card 1/2

L 31542-66

ACC NR: AP6009061 /

present authors became aware of the work of N. O. Young, L. S. Goldstein, and M. J. Block (The motion of bubbles in a vertical temperature gradient. J. of Fluid mechanics, 1959, vol. 6, p. 3), but the editor was unable for technical reasons to hold up the publication of this article for the present authors to compare their results with those of the work of Young et al. The authors thank M. A. Lavrent'yev for a statement of the problem and constant attention to this work. Orig. art. has: 1 figure and 11 formulas.

SUB CODE: 20 / SUBM DATE: 02Aug65 / ORIG REF: 002

Card 2/2 LC

KHRYUKIN, D.Z.; KAZAKOV, P.P.; LUGOVSEV, I.V.

Using aluminum chips instead of powder in producing ferro-alloys.
Bul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform.
18 no.9:6-7 S '65. (MIRA 18:10)

SNEZHKO, P.F., kand.tekhn.nauk; ~~LUGOVYSEV, I.V., inzh.~~; SNEZHKO, P.F., inzh.

Improving the technology of making iron-boron-aluminum alloys. Stal'
21 no.3:239 Mr '61. (MIRA 14:6)

1. Novolipetskiy metallurgicheskiy zavod.
(Iron-boron-aluminum alloys)

MILYANTSEVICH, Ye.P., assistant; IGGOLTSEVA, G.I., vrach

Acute appendicitis according to materials of the surgical ward
of the Railroad Hospital. Sbor. nauch. rab. Sar. gos. med. inst.
44:155-157 '64. (MIRA 18:7)

1. Iz fakul'tetskoy khirurgicheskoy kliniki pediatricheskogo
fakul'teta (zav. - prof. N.I. Golubev) Saratovskogo meditsin-
skogo instituta (rektor - dotsent N.R. Ivanov) na baze khirur-
gicheskogo otdeleniya detskoynoy bol'nitsy Privolzhskoy zheleznoy
dorogi (nachal'nik - F.K. Lazarenko).

KHARITONOV, I.B., assistant; LUGOV'TSEVA, G.P., vrach; LAPITSKAYA, Z.P., vrach

Vesicoureteral reflux. Sbor. nauch. rab. Sar. gos. med. inst. 44:
201-206 '64. (MIRA 18:7)

1. Iz fakul'tetskoy khirurgicheskoy kliniki pediatricheskogo fakul'teta (zav. - prof. N.I. Golubev) Saratovskogo meditsinskogo instituta (rektor - dotsent N.R. Ivanov) na baze Dorozhnoy klinicheskoy bol'nitsy Privolzhskoy zheleznoy dorogi (nachal'nik- R.F. Nazarenko).

NEDOCHETOV, L.S., dotsent; INGOVTSEVA, G.P., vrach; SOROKIN, A.P., vrach

Diagnosis of diverticula of the urinary bladder. Sbor. nauch. rab.
Sar. gos. med. inst. 44:206-211 '64. (MIRA 18:7)

1. Iz fakul'tetskoy khirurgicheskoy kliniki pediatricheskogo fakul'teta (zav. - prof. M.I. Golubev) Saratovskogo meditsinskogo instituta (rektor - dotsent N.R. Ivanov) na baze Derozhnoy klinicheskoy bol'nitsy Privolzhskoy zheleznoy dorogi (nachal'nik - R.F. Nazarenko).

L 00330-67 WFR(5)/EST(1) LJP(c) WH
ACC NO: A10030925

SOURCE CODE: UR/0207/66/000/004/0091/0093

AUTHOR: Lugovtsov, A. A. (Novosibirsk)

ORG: none

TITLE: Propagation of weak shock waves in a magnetic field

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 4, 1966, 91-93

TOPIC TAGS: shock wave propagation, magnetic field, Reynolds number, electric conductivity, shock wave structure, magnetohydrodynamics

ABSTRACT: The magnetohydrodynamic problem solved is that of propagation of weak shock waves in an inhomogeneous conducting medium in the presence of a magnetic field. The width of the perturbed region is assumed small compared with the characteristic dimensions of the problem. The magnetic Reynolds number is also assumed small, so that the induced magnetic field can be neglected. The conductivity of the medium is assumed isotropic. The solution method is similar to that employed by I. B. Keller (J. Appl. Phys., 1954, v. 25, no. 8) and by others. The method used is essentially that of characteristics. Equations for the discontinuities of the pressure, density, and velocity on the shock front are obtained and are shown to go over into the standard equations of ordinary gas dynamics when the magnetic field or the electric conductivity vanish. The author thanks B. I. Zaslavskiy for useful advice and a discussion of the work. Orig. art. has: 17 formulas.

SUB CODE: 20/ SUBM DATE: 10Oct65/ ORIG REF: 003/ OTH REF: 001

Card 1/1

24.4300

S/207/62/000/003/006/016
I028/I228

AUTHOR: Lugovtsov, B. A. (Novosibirsk)

TITLE: Propagation of a shock wave in a reservoir of constant depth at a large distance from the place of the explosion

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 3, 1962, 31-39

TEXT: The flow generated during the passage of the shock wave is described by means of the so-called "equations of short waves". These are non-linear equations, obtained from the general equations on the basis of the assumption that the essential variation of the magnitudes describing the disturbed motion takes place in a small region contiguous to the front of the shock wave. The advantage of this approach is that it simplifies the equations of motion without neglecting the non-linear terms, which are essential for the description of the propagation of the disturbances. The author begins by deriving the equations of the sort waves, and then determines with their aid the asymptotic variation of the pressure at the front of the shock wave and the motion behind the front of the shock wave; in the latter case, the equations of motion being non-linear they are solved by means of particular solutions. The author thanks S. A. Khristianovich for having directed the work. There are 2 figures.

VB

SUBMITTED: February 5, 1962

Card 1/1

KAZAK, M.A., inzh.; LUGOVTSOV, N.P., inzh.; PELEVIN, K.I., inzh.

Manufacturing warped blades for steam turbines. *Energomashinostroenie*
4 no.3:36-39 Mr '58. (MIRA 11:5)

(Steam turbines--Blades)

Organic Chemistry

CA

Reactions of aliphatic diazo compounds with unsaturated compounds. IV. Hydrolysis of 2-butoxycyclopropanecarboxylic acid and its esters. I. A. D'yakonov and N. A. Lugovitsyn.—*J. Gen. Chem. U.S.S.R.*, 20, 2109-17 (1950) (Engl. translation). V. Formation of aldehydesuccinic acid and its transformations in the hydrolysis of 2-butoxycyclopropanecarboxylic acid. *Ibid.* 2119-29.—See *C.A.* 45, 5631k. B. L. M.

CA

phthalate with 10% KOH and concd. after filtration, semicarbazide was added, yielding a semicarbazone, m. 107° S., which analyzed as $C_{11}H_{10}O_3N_2$, being identical with the semicarbazone of the acid $C_{11}H_{10}O_3$, (cf. preceding abstr.). II is hydrolyzed with hot 2.5% H_2SO_4 , and the soln. is concd. and extd. with H_2O , the concd. ext. gives on standing 95% of the cryst. trimer of II, m. 148-50°; more may be obtained from the mother liquor by concn. and treatment with a trace of mineral acid. The trimer m. 155° on rapid heating; it readily forms supersatd. aq. solns. Boiling the trimer with 2 N H_2SO_4 , 2 hrs. gave II (isolated as the *p*-nitrophenylhydrazone); 0.1 N acid gave only a very low yield. Refluxing 13.8 g. II with 100 ml. 10% NaOH 2.5 hrs., neutralization, and concn. gave 25% of the acid $C_{11}H_{10}O_3$, (isolated as the semicarbazone, m. 188-8.5°), also obtained in 37% yield by hydrolyzing the II trimer with hot 2% H_2SO_4 , neutralizing to phenolphthalein with 10% NaOH, and refluxing 2 hrs. I trimer neutralized with 3% NaOH and boiled 1.5 hrs. failed to yield any of this acid and only the trimer was recovered. G. M. Kosolapoff

DYAKONOV, I.A.; LUGOVTSOVA, N.A.

Reactions of aliphatic diazo-compounds with unsaturated compounds.
V. Formation of aldehydosuccinic [propan-3-al-1-carboxylic] acid and
its transformations during the hydrolysis of 2-η -butoxycyclopropane-
1-carboxylic acid. J. gen. Chem. USSR, '50, 20, 2048-2059 [U.S. transl.
2119-2130]. (MLRA 3:11)
(BA - A II Ja '53:28)

CA

Reactions of aliphatic diazo compounds with unsaturated compounds. VII. Diazoacetic ester with vinyl ethyl ether. I. A. Dyakonov and N. A. Lugovtsova (Leningrad State Univ.). *J. Gen. Chem. U.S.S.R.* 21, 921-922 (1951) (Engl. translation).—See *C.A.* 46, 439h. VIII. Diazoacetic ester with allyl bromide. I. A. Dyakonov and N. B. Vinogradova (Leningrad State Univ.). *Ibid.* 933-42.—See *C.A.* 46, 440d. B. R.

LUGOV'YER, D.

Repairing the wave band switch. Radio no. 5:60 My' 55.
(Radio--Repairing) (MIRA 8:6)

LUGOV'YER, D.

"Zenit" camera with a bayonet lock. Sov.foto 21 no.6:32-33
Je '61. (MIRA 14:6)

(Cameras)

LUGOVN'YER, D.

Remote control of a camera. Sov.foto 23 no.3:34 Mr '63. (MIRA 16:4)
(Photography—Equipment and supplies)

LUGOV'YER, L.; KANTOR, B.

Viewfinder for photomicrography. Sov. foto 20 no. 12:29-30
D '60. (MIRA 14:1)

(Photomicrography--Equipment and supplies)

LUGOVYKH, F.

Devide for bending the blades of a screw expeller. Mias.
ind. SSSR 34 no.4:49-50 '63. (MIRA 16:10)

1. Sverdlovskiy myasnoy kombinat.

18.2000

77001
SOV/133-66-2-1/25

AUTHORS: Babushkin, N. M., Shamarin, V. A., Lugovyykh, I. V.

TITLE: Agglomeration of Finely Ground Concentrates of
Manganese Ore

PERIODICAL: Stal', 1960, Nr 2, pp 97-104 (USSR)

ABSTRACT: The authors investigate the possibilities and expediency of agglomeration and briquetting of manganese ore concentrates from Dzhezdinsk formation. The characteristic feature of these concentrates is the presence of considerable amounts of barium and sulfur. The chemical composition of initial material is shown in Table 1.

Card 1/9

Agglomeration of Finely Ground Concentrates
of Manganese Ore

77601
SOV/133-60-2-1/25

Table 1. Chemical composition of initial material
(%).

Material	Mn	MnO ₂	Fe	SiO ₂	Al ₂ O ₃	CaO	MgO	BaO	S	P	H ₂ O
Mn concentrate											
Sample I	27,48	22,81	5,73	28,30	3,62	1,22	0,30	3,31	0,41	0,002	3,16
Sample II	29,15	24,50	5,29	26,70	4,26	1,00	0,32	3,34	0,43	0,004	3,20

Softening of concentrate (under small load) begins
at 1,140-1,150° C, and complete melting at 1,220° C.

Card 2/9

Agglomeration of Finely Ground Concentrates
of Manganese Ore

77601
SOV/133-60-2-1/25

The weight per cubic meter of dry granular material for sample I = 1.95 ton/m³; for sample II, it = 1.89 ton/m³. The granular composition of samples was identical, and size of fractions generally was 0-1.0 mm. The authors discuss the following: (1) results of laboratory investigation of agglomeration; (2) results of industrial tests; (3) experimental manganese-silicon smelting from agglomerate and from briquettes; (4) technical and economical characteristics. The results of this investigation are given in Tables 3 and 5, and the following conclusions were made: The sintering and briquetting processes are practical, and the net cost of the manganese-silicon smelted from agglomerated products is somewhat lower when the sinter is used. Further investigation should be directed toward: (a) rational technology of production; (b) finding a low-priced cementing material for briquetting; (c) development of technology of drying and roasting

Card 3/9

Agglomeration of Finely Ground Concentrates
of Manganese Ore

77601
SOV/133-60-2-1/25

briquettes; (d) study of possibility of pelletizing finely ground concentrates.

Table 3. Results of laboratory investigations of sintering Dzhezdinck manganese ore concentrates. (A) Conditions and performance figures; (1) composition of charge (%): (a) Mn concentrate; (b) dry (0-2 mm); (c) dry return (0-10 mm); (d) dry small coke (0-3 mm); (2) moisture in charge (%); (3) initial temperature of charge ($^{\circ}\text{C}$); (4) height of charge bed (mm); (5) weight of 1 m^3 of dry granular material (ton/m^3); (6) vacuum (mm water column); (a) initial (b) average during the process; (7) temperature of waste gas ($^{\circ}\text{C}$): (a) maximum; (b) average during the process; (8) amount of waste gas ($\text{m}^3/\text{m}^2\text{-sec}$); (a) initial; (b) average during the process; (9) linear speed of sintering in mm/min; (10) specific productivity ($\text{ton}/\text{m}^2 \text{ hr}$); (11) yield of sintering products (% of weight of charge); (12) yield of sound agglomerate % of weight of charge); (13) results of impact tests: yield (%) of fractions (mm); (14) drum tests: yield (%) of fractions

Card 4/9

Agglomeration of Finely Ground Concentrates
of Manganese Ore

77601

SOV/133-60-2-1/25

(mm); (15) chemical composition of agglomerate (%).

Card 5/9

	118	111	116	115	103
	60	55	85	85	60
	40	15	15	15	40
	5.5	4.5	5.5	5.5	4.5
	5.8	5.67	6.13	6.35	7.0
	21	22	19	60	60
	250	250	250	250	250
	1,553	1,564	1,472	1,526	1,588
	991	960	515	960	1000
	962	943	457	924	945
	225	329	250	295	320
	102	115	103	141	131
	0.447	0.360	0.315	0.422	0.533
	0.2.3	0.183	0.152	0.204	0.257
	10.4	8.0	8.2	11.2	10.2
	0.48	0.55	0.50	0.70	0.47
	56.7	65.9	54.7	54.5	55.5
	49.5	72.7	58.3	68.5	48.2
	51.9	55.8	61.6	52.9	48.1
	37.2	21.5	31.7	40.8	41.1
	10.9	13.7	7.7	6.3	10.8
	44.2	26.3	42.1	5.8	33.3
	29.8	33.7	20.3	25.0	30.2
	29.0	38.0	25.6	21.2	31.5
	29.21	—	29.52	29.30	30.05
	5.00	5.05	5.24	4.99	—
	0.27	—	0.30	0.31	0.26
	0.00	—	0.00	0.00	0.01
	—	—	—	—	0.08

Agglomeration of Finely Ground Concentrates of Manganese Ore

77601
SOV/133-60-2-1/25

	114	113	119
(1)	100	10	100
(2)	100	15	100
(3)	100	3.5	100
(4)	100	9.1	100
(5)	100	25.1	100
(6)	100	1.501	100
(7)	100	100	100
(8)	100	100	100
(9)	100	100	100
(10)	100	100	100
(11)	100	100	100
(12)	100	100	100
(13)	100	100	100
(14)	100	100	100
(15)	100	100	100

Card 6/9

Agglomeration of Finely Ground Concentrates
of Manganese Ore

77601

30V/133-60-2-1/25

Table 5. Results of briquetting of Dzhezdinek manganese ore concentrates. (1) Nr experiment; (2) composition of charge (%); (3) concentrate of fractions (mm); (4) coke (0-1 mm); (5) cementing; (6) residual liquid from distillation of alcoholic liquors; (7) pitch; (8) compacting pressure (kg/cm^2); (9) resistance of briquettes to compression (kg/cm^2); (10) moist; (11) dry.

Card 7/9

1	3		2 4	5		8	9	
	0-2	0-0.1		6	7		10	11
1	100	—	—	—	—	250	2.6	6.0
2	100	—	—	—	—	750	6.5	12.5
3	60	40	—	—	—	750	—	40
4	50	50	—	—	—	750	—	56
5	40	60	—	—	—	750	—	43
6	—	100	—	—	—	750	—	40
7	100	—	—	1	—	750	4-5	28
8	100	—	—	2	—	750	4-5	44
9	100	—	—	3	—	750	4-5	109
10	100	—	—	4	—	750	4-5	147
11	100	—	—	4	—	500	—	110
12	100	—	—	4	—	300	—	97
13	100	—	—	5	—	300	—	120
14	100	—	—	4	—	250	—	78
15	100	—	—	5	—	250	—	106
16	50	50	—	1	—	750	—	88
17	50	50	—	2	—	750	—	115
18	42.5	42.5	15	2	—	250	—	103
19	42.5	42.5	15	3	—	250	—	143
20	100	—	—	—	3	500	—	42
21	100	—	—	—	5	500	—	75
22	100	—	—	—	6	500	—	91
23	100	—	—	—	6	300	—	61
24	100	—	—	—	6	250	—	56
25	50	50	—	—	5	500	—	110
26	50	50	—	—	6	500	—	152
27	42.5	42.5	15	—	6	250	—	67
28	42.5	42.5	15	—	7	250	—	90

77601
SOV/133-60-2-1/25

Table 5

Card 8/9

Agglomeration of Finely Ground Concentrates
of Manganese Ore

77601

SOV/133-60-2-1/25

The work was done at the Ural Scientific Research Institute for Mechanical Concentration of Minerals (Uralmekhanobr) and Central Scientific Research Institute of Ferrous Metallurgy (TsNIICHM). The industrial tests were made at the plant NI of Goroblagodatsk Mining Administration (Goroblagodatskoyl rudoupravleniye. Credit is given for their participation to L. G. Moshinskoy, V. N. Peshkov, A. M. Gurevich, G. B. Shirer, S. D. Shifrin, N. P. Lyakishev, T. V. Lugovykh, A. A. Rozhnovskiy, and T. V. Teplyakova. There are 8 tables; 4 figures; and 5 Soviet references.

ASSOCIATION: Uralmekhanobr

Card 9/9