BABKO, A.K.; SHTOKALO, M.I.

Use of the metal-indicator method for the study of oxalate complexes of iron. Ukr.khim.zhur. 30 no.11:1204-1213 '64.

(MIRA 18:2)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

SHTOKALOV, D.A., Cand Tech Sci -- (diss) "Improved

IRRIGATING
~~spraying~~ along trenches." Novocherkassk, 1957,

16 pp (Min of Agr RSFSR. Novocherkassk Engineering

Improvement Inst NIMI) 200 copies (KL, 32-58, 109)

- 43 -

SHTOKALOV, D.A.; STOL'NIKOVA, G.A., red.

[Irrigation technique for grain crops] Tekhnika poliva
zernovykh kul'tur. Moskva, Kolos, 1964. 61 p.
(MIRA 17:12)

SHTOKALOV, I.

Solution of linear differential equations of the   -th order with variable coefficients. Zbir.prats' Inst.mat.AN URSR no.9:140-161 '48. (Differential equations, Linear)

(MLRA 9:9)

L 34351-66   EWT(1)   WW

ACC NR: AP6009062   SOURCE CODE: UR/0207/66/000/001/0142/0144

AUTHOR: Shtokolov, L. S. (Novosibirsk)

ORG: None

TITLE: A generalization of experimental data on the prevalent crisis of heat exchange during the boiling of liquids

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 1, 1966, 142-144

TOPIC TAGS: heat transfer, fluid flow, heat transfer fluid, hydrodynamics

ABSTRACT: The author presents a generalized formula for the calculation of critical heat flows during extended crises. It is shown that prevalent crises are mostly characteristic for the boiling of high-temperature organic heat-transfer agents. An analysis of experimental data shows that the values of the critical density of heat flux during extended crises is mainly determined by pressure and fluid flow rate, and is independent of either time or experimental sequence. Good agreement of the experimental points at highly variable conditions of fluid flow near the surface of heating confirms the assumption

Card 1/2

L 34351-66

ACC NR: AP6009062

of the author on the hydrodynamic nature of the extended crisis. Senior laboratory technician I. V. Svorkova took part in the work. The author thanks S. S. Kutateladze and A. I. Leont'yev for participating in the discussion of this work and for their remarks.
Orig. art. has: 4 figures and 4 formulas.

SUB CODE: 20 / SUBM DATE: 09Mar65 / ORIG REF: 007 / OTH REF: 001

Card 2/2 ULR

SOURCE CODE: UR/0000/65/000/000/0110/0114

L 42880-66   EWT(l)/EWP(m)   IJP(c)   50

ACC NR: AT6021839   (A)

AUTHOR: Kutateladze, S. S.; Leont'yev, A. I.; Mamontova, N. N.;
Moskvicheva, V. N.; Shtokolov, L. S.

ORG: Institute of Thermophysics, Siberian Branch AN SSSR (Institut
teplofiziki SO AN SSSR)

TITLE: Hydrodynamic theory of the heat transfer crisis in forced flow
of a boiling liquid. The crisis at high flow rates and a zero vapor
content in the flow

SOURCE: Teplo- i massoperenos. t. III: Teplo- i massoperenos pri
fazovykh prevrashcheniyakh (Heat and mass transfer. v. 3: Heat and mass
transfer in phase transformations). Minsk, Nauka i tekhnika, 1965,
118-124

TOPIC TAGS: boiling, heat transfer, hydrodynamic theory

ABSTRACT: From the theory of the limiting friction laws in the
turbulent boundary layer it follows that when the Reynolds number
approaches infinity, the critical injection in a homogeneous flow is
equal to

$$j_{\kappa p} = 2 c_{f 0} \gamma W_0.$$ (1)

Card 1/2

137-58-4-6437

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 14 (USSR)

AUTHOR: Shtokarev, A. D.

TITLE: Operation of An Experimental FluoSolids Roasting Installation at
            the Srednural'skiy Copper Smelter (O rabote opytnoy ustanovki
            dlya obzhiga v kipyashchem sloye na Sredneural'skom medeplavil'-
            nom zavode)

PERIODICAL: Tr. Tekhn. soveshchaniya po obzhigu materialov v kipyash-
            chem sloye. Moscow, Metallurgizdat, 1956, pp 72-74

ABSTRACT: The schedule under which this installation operated was as
            follows: drying of concentrate (9-11 percent Cu, 6-7 percent Zn,
            37-40 percent S, 34-35 percent Fe) in a drum drier, delivery to
            the bin, transfer from it by a belt platter feed onto which quartz
            and limestone were also proportioned. This charge went to the
            disintegrator, from which it went to the screen, and the -2 mm
            product was carried by belt past scales and on to FluoSolids
            roasting. The first time the furnace was used--electric filter
            dust being employed--the entire layer fused. After the second
            use--a charge being fed (800 kg sand, 200 kg cinders, and 200 kg
Card 1/2   concentrate)--the furnace stopped after 12 hours because of ac-

137-58-4-6437

Operation of An Experimental FluoSolids Roasting Installation (cont.)

cumulation of large grains of concentrate in the layer. The furnace was then started on a charge (18-20 percent concentrate, fine sand) and was run for 10 days. 220 tons of concentrate was treated, and 86 tons of cinder was obtained, the rest being electric filter dust. The S content of the cinders was 3.7-6.0 percent and the sulfate content up to 2.5 percent. The SO_2 content of the gases was 10.4 and up to 12 percent. The capacity of the furnace was appx. 10 t/m^2 of charge per day, the air used being 419-425 $m^3/m^2/hr$. The blast pressure was 1200-1350 mm water.

1. Metallurgy--Roasting precesses

A. P.

Card 2/2

ALEKSEYEV, Ye.S.; ZASYPKIN, N.S.; SHTOKAREV, A.D.; BUROVOY, I.A.; KRICHEVSKIY,
    G.Ya.; BOROVKOV, Ye.G.; KUZNETSOV, Yu.A.

    Utilization of the excess heat of the fluidized bed of roasting furnaces.
    Prom. energ. 20 no.5:43-47 My '65.   (MIRA 18:7)

$S\!H$ $\cdots$ H $\cdots$ Y, $\cdots$

AUTHORS: Burovoy, I.A., Krichevskiy, G.Ya. and Shtckarev, A.M.   136-58-3- 21

TITLE: Development of arrangements for removing excess heat from a fluidized
bed for roasting granulated copper-zinc concentrate at a high
productivity (Razrabotka ustroystv ot*yema izbytochnogo tepla
kipyashchego sloya dlya obzhiga granulirovannogo medno-tsinkovogo
kontsentrata pri vysokoy proizvoditel'nosti)

PERIODICAL: Tsvetnyye Metally, 1958, 3/Nr.3. pp. 30 - 38 (USSR)

ABSTRACT: A limiting factor in the productivity of fluidized-bed roasting of
sulphide ores in roasters of $1.5m^2$ hearth area and over, though this is
not evident in laboratory-scale installations becuase of higher wall-
area: hearth area ratios. The authors describe work at Gintsvetmet and
the Sredneural'skiy copper-smelting works on a $1.5-m^2$ hearth area roaster
with water-cooled sides and divided into three zones by two water-
cooled blocks, each consisting of three plates with evaporative
cooling (figs.1 & 2). Degtyar copper-zinc concentrate pelletised in a
drying drum was used, the roasting being continued to 5-8% S in the
residue and to enable the daily rate of roasting to be raised to 13
tonnes of sulphur/M^2 two of the zones of the roaster were provided with
additional cooling in the form of vertical cooling coils directly in the
bed. The rate of heat removal was 530,000 kcal/m^3 of bed, the vertical-
tube coolers being the most effective, while a simultaneously installed
Card 1/2   water-injection system had comparatively little effect (table 3).

Development of arrangements for removing excess heat from a fluidized   136-58-3-6/21
bed for roasting granulated copper-zinc concentrate at a high productivity.

        The authors give details of the procedure used for casting the blocks
(fig.3), describe the difficulties encountered in starting up a
roaster with such effective cooling, and outline the tedious procedure
which, in the absence of blast-heating facilities, had to be adopted.
They give in a diagrammatic form (fig.4) comparative data on
productivity and specific firing rates for fluidized-bed roastin of
various sulphide materials at the Voskresenskiy chemical combine as
well as at the Sredneural'skiy and zinc works. The following personnel
of the Sredneural'skiy works are named as having participated in the
works: Ye.S. Alekseyev, T.F. Kirova, P.V. Bryantsev, L.I. Burma,
E.G. Klyayn, M.P. Bryantseva, V.K. Vinokurov, V.P. Grishanov,
A.V. Postogonov, and A.P. Ol'kov. The Grintsvetmet personnel were
I.T. Matveyev and M.I. Mantsevich. There are 4 figures, 3 tables and
3 Slavic references.

ASSOCIATION   Gintsvetmet i Sredneural'skiy Medeplavil'nyy Zavod (Gintsvetmet and
              the Sredneural'skiy Copper Smelting Works)
AVAILABLE: Library of Congress.

           1. Sulphide ores-Processing-Equipment   2. Heat transfer-Equipment

Card 2/2

SHTOKMAN, G. P.

Distr: 4E4J

Corrosive activity of nitrate-nitrite melts. R. I. Gurovich and G. P. Shtokman. Zhur. Priklad. Khim. 30, 1517-52 (1957); J. C.A. 51, 1805c.—The corrosive activity of a nitrate-nitrite melt (I) contg. KNO_3 53, $NaNO_3$ 7, and $NaNO_2$ 40% on steel alloys and Armco steel was studied. Steel 12Cr3FV contg. Cr 2 and V 0.81% failed at 500°, whereas steels Cr5VF(76) and (77) contg. Cr 5.44-6.48, V 0.85-0.58, and W 0.37-0.57% corroded very little, 0.2 g./sq. m. hr., at 500-50°. The latter 2 failed at 600°, and the melt contained 0.33% Cr. Alloys $OCrN_7M$ contg. Ni 2.84 and Cr 1.04% and some Mo, and Cr18N9T contg. Cr 18, Ni 9, and Ti 0.5% were stable at 600°, and the melt contained 0.018% CrO_4 and no Fe or Ni. Armco steel failed at 600°. The addn. of 2% K_2CrO_4 to I increased the corrosiveness of the melt toward alloys $OCrN_7M$ and towards alloys 12MFCr and 12CrMF contg. Cr 0.0-0.02, V 0.20-0.24, and Mo 0.35-0.38%.   J. Broncessit

Shtokman, I. G.

Shtokman, I. G. - "The theoretical determination of the ultimate length of belt conveyors of a given design and the selection of the location of the driving gear," Izvestiya Dne repetr. gornogo in-ta, Vol. XIX, 1948, p. 173-86

SO: U-3600, 10 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).

SHTOKMAN(sic), I. I.

Shtokman (sic), I. I.: "Determining the acceleration of movement of a chain of type-ST-11 scraper conveyors", Izvestiya Dnepropetr. gornogo in-ta im. Artema, VOl. XX, 1948, p. 105-11.

SO: U-4631, 16 Sept. 53, (Letopis 'Zhurnal 'nykh State-, No. 24, 1949).

SHTOKLA., I. G.

Polyakov, .. S. and Shtoklan, I. G.   "The achievements of Soviet science in the theory of belt conveyors", Izvestiya Dnepropetr. gornogo in-ta i. Artema, Vol. XX, 194?, p. 135-43, - Bibliog: 17 items.

SO: L-4631, 16 Sept. 1953, (Letopis 'Zhurnal

1963. SPRING DYNAMOMETER FOR MEASURING FORCES IN CHAIN OF SCRAPER CONVEYOR. Shtokman, I.G. and Grebennilov, S.A   (Ugol(Coal). Dec. 1951, 21,22). An illustrated description is given. A special link which is inserted in the chain has slightly S-shaped springy side plates and an instrument travelling round with it and recording relative movements of its two pins. (L).

SHTOKHMAN, I.G., kandidat tekhnicheskikh nauk.

Dynamic stresses in the chain of scraping conveyers. Sbor.trud.Inst.
gor.dela AN UBSR no.2:97-104 '52.   (MLRA 7:12)
    (Coal mining machinery)

SOLOV'YEV, A.A., kandidat tekhnicheskikh nauk.

Review of "Collection of problems for a course on mine transportation" by Professor N.S.Poliakov, Docent E.K.Komarova, Docent I.G.Shtokman. A.A.Solov'ev. Ugol' 28 no.6:46-47 Je '53. (MLRA 6:6)

1. Khar'kovskiy gornyy institut.   (Mine haulage)   (Poliakov, N.S.)
(Komarova, E.K.) (Shtokman, I.G.)

SHTOKMAN, I.G., dotsent, kandidat tekhnicheskikh nauk; MURZIN, V.A., kandidat tekhnicheskikh nauk; POLUYANSKIY, S.A., inzhener.

Experimental determination of the propagation speed of resiliency waves in conveyor chains. Vest.mash. 34 no.2:26-27 F '54.

(MLRA 7:3)

1. Dnepropetrovskiy gornyy institut im. Artema (for Shtokman).
2. Institut gornogo dela Akademii nauk URRS (for Murzin and Poluyanskiy).   (Conveying machinery)

SHTOKMAN, I.G.

VESTNIK MASHINOSTROYENIYA, (ENGINEERING JOURNAL)
Vol 35, No. 7, July, 1955

On the existence of dynamic loads in the chains of conveyor installations.
Report on the visualization and causes of impact and fluctuating loads,
using strain gauges and oscillographic recording contains critical
comments on the views expressed in a paper by V. A. Kruzhkov on the
same subject (same journal, 1953, No. 10).
By I. G. Shtokman, V. A. Murzin and S. A. Poluyanskyi ... 16

3

Name:	SHTOKMAN, Il'ya Grigor'yevich
Dissertation:	Dynamic loads of chain drives of ore conveyers
Degree:	Doc Tech Sci
Affiliation:	Dnepropetrovsk Order of Labor Red Banner Mining Inst imeni Artem
Defense Date, Place:	13 Jun 56, Council of Leningrad Order of Lenin and Order of Labor Red Banner Mining Inst imeni Plekhanov
Certification Date:	29 Jun 57
Source:	BMVO 18/57

POLYAKOV, Nikolay Sergeyevich; LICHIN, Anisim Yakovlevich; SHTOKMAN, Il'ya
    Grigor'yevich; FAYBISOVICH, I.L., otvetstvennyy redaktor; NADEINSKAYA,
    A.A., tekhnicheskiy redaktor

[Cutter-loader model DGI-2m] Gornoprokhodcheskii kombain DGI-2m.
Moskva, Ugletekhizdat, 1956. 11 p.   (MLRA 9:10)
        (Coal mining machinery)

124-58-9-10548

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 158 (USSR)

AUTHOR: Shtokman, I. G.

TITLE: Dynamic Loads in the Chain-hauling Organs of Mining Conveyers
            (Dinamicheskiye nagruzki v tsepnykh tyagovykh organakh rudni-
            chnykh konveyyerov)

PERIODICAL: V sb.: Vopr. teorii i rascheta pod''yemno-transp. mashin.
              Moscow-Leningrad, Mashgiz, 1957, pp 169-174

ABSTRACT: Bibliographic entry

              1. Mining--USSR   2. Machines--Stresses   3. Chains--Applications

Card 1/1 .

SHTOKMAN, I.G., doktor tekhn.nauk; MEL'NIKOV, T.V., inzh.; POLUYANSKIY, S.A., gornyy inzhener

Experimental research on increasing the speed of the chains of scraper conveyers. Vop. rud. transp. no.2:9-14 1957,
(MIRA 14:4)

1. Dnepropetrovskiy gornyy institut (for Shtokman). 2. Khar'kovskiy zavod "Svet shakhtera" (for Mel'nikov). 3. Institut gornogo dela AN USSR (for Poluyanskiy).
(Conveying machinery--Testing)

SHTOKMAN, I.G., doktor tekhn.nauk

Dynamic processes in flexible traction connectors during
unsteady motion. Vop. rud. transp. no.2:61-71 1957.
(MIRA 14:4)

1. Dnepropetrovskiy gornyy institut.
(Conveying machinery)

SHTOKMAN, I.G., doktor tekhn.nauk

Static tension caused by changes in the length of the chain
contour of a conveyer. Vop. rud. transp. no.2:79-84 1957.
(MIRA 14:4)

1. Dnepropetrovskiy gornyy institut.
(Chains)
(Conveying machinery)

BILICHENKO, N. Ya., dotsent, kand.tekhn.nauk; KUZNETSOV, B.A., dotsent, kand.
tekhn.nauk; SHTOKMAN, I.G., doktor tekhn.nauk

Resistance on the deflector drums of belt conveyers and sprocket
scraper conveyers. Vop. rud. transp. no.2:123-127 1957.
(MIRA 14:4)

1. Dnepropetrovskiy gornyy institut.
(Conveying machinery--Testing)

SHTOKMAN, I.G.

Basic prrameters of scraper conveyers. Ugol' 32 no.3:10-14 Mr '57.
(MLRA 10:5)

1.Dnepropetrovskiy gornyy institut.
              (Coal mining machinery)
              (Conveying machinery)

SOV/122-58-8-7/29

AUTHORS: Shtokman, I.G. Doctor of Technical Sciences, and
Lyakhovitskiy, S.I., Candidate of Technical Sciences

TITLE: Procedure for the Fatigue Analysis of Conveyor Chains
(Metodika rascheta na ustalost' tyagovykh tsepey
konveyerov)

PERIODICAL: Vestnik mashinostroyeniya, 1958, Nr 8, pp 23-26 (USSR)

ABSTRACT: Frequent fatigue failures of conveyor chains have
prompted an analysis of the equivalent fatigue load
and its comparison with the limiting fatigue strength.
The fatigue load amplitude varies continuously. The
equivalent fatigue load is defined by the following
relation. The m-th power of the equivalent fatigue
load, multiplied by the number of cycles (life) which
defines the limiting fatigue load at constant amplitude
in a symmetrical cycle is equal to the sum of all
fatigue contribution terms. Each term refers to a
number of cycles during which the symmetrically varying
load has a constant amplitude and is equal to this
number multiplied by the m-th power of the load amplitude.
m is the exponent of the falling branch in the load/
fatigue life plot. It is stated that for chains of

Card1/4

Procedure for the Fatigue Analysis of Conveyor Chains

typical coal conveyors, operating under intense corrosion
conditions, the limiting symmetrical fatigue load component
is practically independent of the mean load. The example
of a mine conveyor chain designated SKR-11, is quoted
wherein the limiting fatigue load is independent of the
mean chain tension and amounts to 700 kg. It was found on
the basis of some test results that the symmetrical cycle
load amplitude vanishes at the driving sprocket and grows
linearly along the tension side to become a maximum at the
driven sprocket. As the chain passes over the driven
sprocket, its mean tension undergoes a sudden jump from
that in the tension side to that of the slack side. In
doing so, the fluctuating load component does not vary but
retains its maximum amplitude and, during the passage
along the slack length of the chain, again diminishes in
accordance with a linear law until it vanishes when reaching
the driving sprocket. The frequency of fluctuations is
the sprocket tooth frequency. Hence, the total number of
fluctuations is equal to the number of times each link
passes over the driving sprocket times the number of links
in the straight portions of the chain. It is stated that

Card2/4

SOV/122-58-8-7/29

Procedure for the Fatigue Analysis of Conveyor Chains

the maximum amplitude of the fluctuating-load component
can be determined from a resonance test of the installed
chain, since many chains work under resonance conditions.
The combination of these assumptions, with the help of
elementary algebra, yields the equivalent fatigue load
(Eq.(12)) which can be compared with the fatigue strength
measured in rig tests. For example, the SKR-11 conveyor
chain is installed in a conveyor of 100 m length between
sprocket centres. The chain has a pitch of 8 cm and
operates at a linear speed of 0.412 m/sec. The mean tension
in the taut side is 200 kg and in the slack side, 1 000 kg.
The specification calls for a service life of 2 100
operating hours. The maximum amplitude of the fluctuating-
load component was found to be 800 kg. Fatigue tests of
the chain have established a symmetrical cycle fatigue
strength of 700 kg (constant amplitude) for a fatigue life
of 3 million cycles. The value of the exponent m was 9.
The application of the method proposed in the report yields
an equivalent fatigue load of 840 kg. It follows that the
effective load exceeds the limiting load and the chain
cannot be expected to last the required service life.

Card3/4

SOV/122-58-8-7/29
Procedure for the Fatigue Analysis of Conveyor Chains

Considering that a maximum fluctuating-load amplitude
may vary from one installation to another, whilst the
other properties of the chain remain the same, it is
useful to derive for every chain a relation between the
equivalent fatigue load and the maximum load amplitude.
In a typical example, both magnitudes are nearly equal
at 600 kg. However, at a fluctuating-load amplitude
of 200 kg, the equivalent fatigue load is about 400 kg.
There are 2 figures and 8 Soviet references.

1. Chains—Mechanical properties   2. Chains—Analysis   3. Chains
—Test methods

Card 4/4

SHTOKMAN, I.G., doktor tekhn. nauk; LIPITSKIY, G.T., inzh.; UGOL'NIKOV, V.F., inzh.

Rolling hinges on traction chains of multibucket excavators.
Izv. vys. ucheb. zav.; gor. zhur. no.12:79-86 '58.
(MIRA 12:8)

1.Dnepropetrovskiy gornyy institut.
(Excavating machinery)

SHTOKMAN, I.G.

Fatigue strength of mine conveyer traction chains. Nauch. trudy
MGI no. 20:54-60 '58.   (MIRA 11:8)
                    (Conveying machinery)
                      (Link belting)
                    (Metals--Fatigue)

SHTOKMAN, I.G., doktor tekhn. nauk,; LYAKHOVITSKIY, S.I., kand. tekhn. nauk

Fatigue analysis of conveyor pull chains. Vest. mash. 38 no. 8:23-26 Ag '58.   (MIRA 11:8)

(Chains--Testing)

POLYAKOV, Nikolay Sergeyevich, prof.; SHTOKMAN, Il'ya Grigor'yevich,
       prof.; KOMAROVA, Yevgeniya Kuz'minichna, dotsent; SPIVAKOVSKIY,
       A.O., prof., retsenzent; ANDREYEV, A.V., dotsent, retsenzent;
       VASIL'YEV, N.V., dotsent, retsenzent; YEVNEVICH, A.V., dotsent,
       retsenzent; LOPATIN, S.I., dotsent, retsenzent; SOLOD, G.I.,
       dotsent, retsenzent; SHAKHMEYSTER, L.G., dotsent, retsenzent;
       SHORIN, V.G., dotsent, retsenzent; SAMOYLYUK, N.D., inzh.,
       retsenzent; KOLOMIYTSEV, A.D., otv.red.; SHKLYAR, S.Yu., tekhn.red.;
       KONDRAT'YEVA, M.A., tekhn.red.

[Problems and exercises on mine haulage] Sbornik zadach i uprazh-
nenii po rudnichnomu transportu. Izd.2., dop. i perer. Moskva,
Ugletekhizdat, 1959. 256 p.   (MIRA 13:4)

1. Chlen-korrespondent AN USSR (for Polyakov). 2. Chlen-korrespon-
dent AN SSSR (for Spivakovskiy). 3. Kafedra rudnichnogo transporta
Moskovskogo gornogo instituta (for Spivakovskiy, Andreyev, Vasil'yev,
Yevnevich, Lopatin, Solod, Shakhmeyster, Shorin).
                    (Mine haulage)

SHTOKMAN, Il'ya Grigor'yevich; YAKOVENKO, Yu.P., inzh., otv.red.;
KOLOMIYTSEV, A.D., red.izd-va; IL'INSKAYA, G.M., tekhn.red.

[Dynamics of mine conveyer traction chains] Dinamika
tiagovykh tsepei rudnichnykh konveierov. Moskva, Ugletekh-
izdat, 1959.   289 p.   (MIRA 12:9)
    (Conveying machinery)   (Mine haulage)

VASIL'YEV, Nikolay Vasil'yevich, dotsent, kand.tekhn.nauk;POLYAKOV, N.S.,
        prof., retsenzent; SHTOKMAN, I.G., prof., doktor tekhn.nauk,
        retsenzent; BAKHURIN, K.I., kand.tekhn.nauk, retsenzent; KUZNETSOV,
        B.A., dotsent, kand.tekhn.nauk, retsenzent; BILICHENKO, N.Ya.,
        dotsent, kand.tekhn.nauk, retsenzent; RENGEVICH, A.A., dotsent,
        kand.tekhn.nauk, retsenzent; KOZLOVSKIY, S.I., dotsent, kand.
        tekhn.nauk, retsenzent; YEVNEVICH, A.V., dotsent, kand.tekhn.nauk,
        otv.red.; GARBER, T.N., red.izd-va; SHKLYAR, S.Ya., tekhn.red.

[Transportation and storage in ore dressing and briquetting plants]
Transport i sklady na obogatitel'nykh i briketnykh fabrikakh.
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1959.
341 p.   (MIRA 13:2)

1. Zaveduyushchiy kafedroy rudnichnogo transporta Dnepropetrovskogo
gornogo instituta, chlen-korrespondent AN USSR (for Polyakov).
2. Kafedra rudnichnogo transporta Dnepropetrovskogo gornogo institu-
ta (for Shtokman, Bakhurin, Kuznetsov, Bilichenko, Rengevich). 3. Ka-
fedra rudnichnogo transporta Moskovskogo gornogo instituta (for Yev-
nevich).
        (Ore dressing)   (Ore handling) (Conveying machinery)

SHTOKMAN I. G—

ALEKSANDROV, B.F., inzh.; BALYKOV, V.M., inzh.; BARANOVSKIY, F.I., inzh.;
BOGUTSKIY, N.V., inzh.; BUN'KO, V.A., kand.tekhn.nauk, dotsent;
VAVILOV, V.V., inzh.; VOLOTKOVSKIY, S.A., prof., doktor tekhn.nauk;
GRIGOR'YEV, L.Ya., inzh.; GRIDIN, A.D., inzh.; ZARMAN, L.N., inzh.;
KOVALEV, P.F., kand.tekhn.nauk; KUZNETSOV, B.A., kand.tekhn.nauk,
dotsent; KUSNITSYN, G.I., inzh.; LATYSHEV, A.F., inzh.; LEYBOV,
R.M., doktor tekhn.nauk, prof.; LEYTES, Z.M., inzh.; LISITSYN, A.A.,
inzh.; LOKHANIN, K.A., inzh.; LYUBIMOV, B.N., inzh.; MASHKEVICH,
K.S., inzh.; MALKHAS'YAN, R.V.; MILOSERDIN, M.M., inzh.; MITNIK,
V.B., kand.tekhn.nauk; MIKHEYEV, Yu.A., inzh.; PARAMONOV, V.I.,
inzh.; ROMANOVSKIY, Yu.G., inzh.; RUBINOVICH, Ye.Ye., inzh.;
SAMOYLYUK, N.D., kand.tekhn.nauk; SMEKHOV, V.K., inzh.; SMOLDY-
REV, A.Ye., kand.tekhn.nauk; SNAGIN, V.T., inzh.; SNAGOVSKIY,
Ye.S., kand.tekhn.nauk; FEYGIN, L.M., inzh.; FRENKEL', B.B., inzh.;
FURMAN, A.A., inzh.; KHORIN, V.N., dotsent, kand.tekhn.nauk; CHET-
VEROV, B.M., inzh.; CHUGUNIKHIN, S.I., inzh.; SHELKOVNIKOV, V.N.,
inzh.; SHIRYAYEV, B.M., inzh.; SHISHKIN, N.F., kand.tekhn.nauk;
SHPIL'BERG, I.L., inzh.; SHORIN, V.G., dotsent, kand.tekhn.nauk;
SHTOKMAN, I.G., doktor tekhn.nauk; SHURIS, N.A., inzh.; TERPIGOREV,
A.M., glavnyy red.; TOPCHIYEV, A.V., otv.red.toma; LIVSHITS, I.I.,
zamestitel' otv.red.; ABRAMOV, V.I., red.; LADYGIN, A.M., red.;
MOROZOV, R.N., red.; OZERNOY, M.I., red.; SPIVAKOVSKIY, A.O.,
red.; FAYBISOVICH, I.L., red.; ARKHANGEL'SKIY, A.S., inzh., red.;
(Continued on next card)

ALEKSANDROV, B.F.---(continued)   Card 2.
BELYAYEV, V.S., inzh., red.; BUKHANOVA, L.I., inzh., red.; VLASOV,
V.M., inzh., red.; GLADILIN, L.V., prof., doktor tekhn.nauk, red.;
GREBTSOV, N.V., inzh., red.; GRECHISHKIN, F.G., inzh., red.; GON-
CHAREVICH, I.F., kand.tekhn.nauk, red.; GUDALOV, V.P., kand.tekhn.
nauk, red.; IGNATOV, N.N., inzh., red.; LOMAKIN, S.M., dotsent, kand.
tekhn.nauk, red.; MARTYNOV, M.V., dotsent, kand.tekhn.nauk, red.;
POVOLOTSKIY, I.A., inzh., red.; SVETLICHNYY, P.L., inzh., red.;SAL'-
TSEVICH, L.A., kand.tekhn.nauk, red.; SPERANTOV, A.V., kand.tekhn.
nauk, red.; SHETLAR, G.A., inzh., red.; ABARBARCHUK, F.I., red.izd-va;
PROZOROVSKAYA, V.L., tekhn.red.; KONDRAT'YEVA, M.A., tekhn.red.

[Mining: an encyclopedic handbook] Gornoe delo; entsiklopedicheskii
spravochnik. Glav.red.A.M.Terpigorev. Chleny glav.redaktsii A.I.
Baranov i dr. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu.
Vol.7. [Mining machinery] Gornye mashiny. Redkol.toma A.V.Topchiev i
dr. 1959. 638 p.   (Mining machinery)
                                                     (MIRA 13:1)

SHTOKMAN, I.G., doktor tekhn.nauk

Qualitative theory on the breaking of traction chains on mine
conveyers from fatigue. Vop. rud. transp. no.3:9-22 1959.
(MIRA 14:4)

1. Dnepropetrovskiy gornyy institut.
(Chains—Testing)
(Conveying machinery)

SHTOKMAN, I.G., doktor tekhnicheskikh nauk; EPPEL', L.I., gornyy inzhener

Testing traction chains on mine conveyers for fatigue. Vop.
rud. transp. no.3:22-28 1959.   (MIRA 14:4)

1. Dnepropetrovskiy gornyy institut.
                    (Chains—Testing)
                    (Conveying machinery)

SHTOKMAN, I.G., doktor tekhn.nauk

Allowing the use of a spring dynamometer to measure the dynamic
load of traction chains. Vop. rud. transp. no.3:63-67 1959.
(MIRA 14:4)

1. Dnepropetrovskiy gornyy institut.
        (Chains—Testing)
        (Conveying machinery)
        (Dynamometer)

SHTOKMAN, I.G., doktor tekhn.nauk

Theory of the performance of an inclined automatic belt conveyer
with the motor cut off. Vop. rud. transp. no.3:82-86 1959.
(MIRA 14:4)

1. Dnepropetrovskiy gornyy institut.
(Conveying machinery)

SHTOKMAN, I.G., doktor tekhn.nauk

Research on the effect of external, diversified drag on eliminating
vibration in chain conveyors. Vop.rud. transp. no.4:24-33 '60.
(MIRA 14:3)

1. Dnepropetrovskiy gornyy institut im. Artema.
(Conveying machinery—Vibration)

SHTOKMAN, I.G., doktor;tekhn.nauk; SHEREMET, A.A., inzh.

Belt-chain conveyor theory. Vop.rud. transp. no.4:92-98 '60.
(MIRA 14:3)

1. Dnepropetrovskiy gornyy institut im. Artema.
(Conveying machinery)

SHTOKMAN, I.G., doktor tekhn.nauk

Problem of calculating the driving power of a winch in tail-rope
haulage. Vop.rud. transp. no.4:325-330 '60.   (MIRA 14:3)

1. Dnepropetrovskiy gornyy institut im. Artema.
                (Winches) (Mine haulage)

POLYAKOV, N.S.; SHTOKMAN, I.G., doktor tekhn.nauk

More about the selection of the motion speed of the scraper traction
chain. Ugol' 36 no.3:57-58 Mr '61.   (MIRA 14:5)

1. Dnepropetrovskiy gornyy institut. 2. Chlen-korrespondent AN USSR
(for Polyakov).
                          (Conveying machinery)

POLYAKOV, Nikolay Sergeyevich, doktor tekhn. nauk, prof.; SHTOKMAN,
Il'ya Grigor'yevich, doktor tekhn. nauk, prof.; KVITKO,
A.K., otv. red.; KOVAL', I.V., red. izd-va; LOMILINA, L.I.,
tekhn. red.; SABITOV, A., tekhn. red.

[Prinicples of theory and design of mine haulage apparatus]
Osnovy teorii i raschety rudnichnykh transportnykh ustanovok.
Moskva, Gosgortekhizdat, 1962. 490 p.   (MIRA 15:4)

1. Chlen-korrespondent Akademii nauk USSR (for Polyakov).
                  (Mine haulage)

SHTOKMAN, I.G., prof.; BYSTROV, V.V., inzh.

Stability of traction chains of mine conveyors under the action
of transverse loads. Izv. vys. uch. zav.; gor. zhur. 5 no.6:
89-94 '62.   (MIRA 15:9)

1. Donetskiy ordena Trudovogo Krasnogo Znameni politekhnicheskiy
institut. Rekomendovana kafedroy gornozavodskogo transporta.
  (Chains) (Mechanical wear) (Conveying machinery)

SHTOKMAN, I.G., prof.; TIMOSHKIN, V.A., kand.tekhn.nauk; KRASILOVSKIY, L.S.,
       inzh.; IL'CHENKO, A.I., inzh.; BERLIN, M.Ya., inzh.; SMIRNOV, V.K.,
       inzh.; EPPEL', L.I., inzh.; FILIPPOV, A.M., inzh.

New two-member sectional TsDR traction chain for underground
scraper conveyers. Ugol' Ukr. 6 no.2:33-34 F '62. (MIRA 15:2)
                           (Conveying machinery)

YEVNEVICH, Anton Vladislavoyich; DAVYDOV, B.L., prof., retsenzent;
SOLOV'YEV, A.A., prof., retsenzent; SHTOKMAN, I.G., prof.,
retsenzent; VASIL'YEV, N.V., dots., dov. red., KOVAL', I.V.,
red.izd-va; BOLDYREVA, Z.A., tekhn. red.; MAKSIMOVA, V.V.,
tekhn. red.

[Machines formine haulage] Gornye-transportnye mashiny.
Izd.2. Moskva, Gosgortekhizdat, 1963. 467 p. (MIRA 16:9)

1. Khar'kovskiy gornyy institut (for Davydov, Solov'yev)
2. Donetskiy politekhnicheskiy institut (for Shtokman).
(Mine haulage)

LEYBOV, R.M., prof., doktor tekhn. nauk, red.; OGLOBLIN, D.N.,
prof., doktor tekhn. nauk, red.; NAYDYSH, A.M., prof.,
red.; KSENOFONTOVA, A.I., prof., red.: MEDVEDEV, B.I.,
dots., red.; TARANOV, P.Ya., dots., red.; LEYYUOV, R.M.,
prof., red.; SHTOKMAN, I.G., prof., red.; POLESIN, Ya.L.,
otv. red.; YEROKHIN, G.M., tekhn. red.

[Safety measures in the coal industry] Tekhnika bezopas-
nosti v ugol'noi promyshlennosti. Moskva, Gosgortekhizdat,
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1. Donetskiy politekhnicheskiy institut (for Taranov,
Shtokman).
            (Coal mines and mining—Safety measures)

SHTOKMAN, I.G., prof.

Selection of a place to locate intermediate drives and equalizing devices for inclined apron conveyers. Izv.vys.ucheb.zav.;gor.zhur. 7 no.7:86-91 '64.   (MIRA 17:10)

1. Donetskiy politekhnicheskiy institut.   Rekomedovana kafedroy rudnichnogo transporta.

SHTOKMAN, V. B.   (Vladimir Borisovich)

"Theoretical Bases for Calculating Stationary Geostrophic Currents on the basis of Oceanographic Measurements," Problemy Arktiki, p. 2, 1941

"Change of the Stationary Field of Tempe-Travel In Streams in the Sea
in the Case of Change of the Intensity of Turbulent Diffusion and of
The Velocity of the Flow,"
(Arctic Scientific Research Inst.   WULF I Chief Administration of North
Sea Routes I), -1944-.
Iv. AN. Nauk SSSR, Ser. Geograf. i Geofiz., No. 1-6, 1944

"On the Determination of the Mixing C affiliated in the Sea by Means of S
z-Curves (On the Dependence of Potential Heat)," Dok.Ad., 48, No. 6, 1944.
Pub. Oceanology; Geol. Sci., 2124-6.

_____, _. _.

"_____ ____ ____ _ _____ of T_____ C_____ __ ___
_____ of ___ ____,"   Dok.AN,
__, __. _, ____.   ___. C__ _____; ____. S__., _____.

"The description of the Spreading of Atlantic Waters in the Polar Basin," Dok.AN, XX, No. 1, 1945. Lib. Cong. class; Arc'. Sci., -1944-.

BARANOV, V. A.

"Horizontal Circulation of Water in the Sea, as Caused by Non-Uniform Velocity Distribution in a Shoreward Wind Across its Movement,"   Dok.AN,

59, No. 2, 1947.   L. G. Oceanology; Acad. Sci., c1948-.

V.B. STOKMAN

PA 50T83

USSR/Oceanology
Heat - Conductivity

Jan 1946

"Vertical Distribution of Thermal Waves in the Sea and Indirect Method for Determining the Coefficient of Turbulent Heat Conductivity," V. B. Stokman, 44 pp

"Trudy Instituta Okeanol" Vol I

Discusses errors of calculation of the turbulent heat conductivity coefficient K_z by the Fourrier-Schmidt method and Fjeldstad's formula. Shows that computation of K_z by phase displacement amplitude relation should not be used as at present for small depth intervals, but that the most reliable value would be obtained by application of the formulae to the layer of greatest width. This is checked by application of method on Sargasso Sea data.

IC

50T83

PA 50162

STOKMAN, V.B.

USSR/Oceanology   Jan 1946
        Currents, Ocean

"On the Dissipation of Energy in Stationary Ocean
Currents," V. B. Stokman, 16 pp

"Trudy Instituta Okeanol" Vol I

Involves equation by integral method for computing
dissipation of energy in currents produced by winds
and pressure gradients in homogeneous limited sea
of finite depth. Computations for the "Aransgrund"
lightship agree well with the theory. Includes
critical analysis of computation by K. Suda of
dissipation in convectional current that disputes
the reliability of the computations.
LC   50T82

STCKMAN, V.B.

IC

USSR/Oceanology
Heat Exchange Systems

Jan 1946

"On the Relationship Between Coefficients of Horizontal and Vertical Turbulent Heat-Exchange in the Sea," V. B. Stokman, 10 pp

"Trudy Instituta Okeanol" Vol I

Relations between coefficients of horizontal (K_x) and the vertical (K_z) turbulent heat exchange in the sea shown to be determinable approximately from the expression

$$\frac{K_x}{K_z} = \left(\frac{\partial \vartheta}{\partial x} \Big/ \frac{\partial \vartheta}{\partial z}\right)^2.$$

Thus K_x is on the average 10^6 times greater than K_z. Evidence produced that K_z, contrary to general opinion

IC

USSR/Oceanology (Contd)   Jan 1946

must possess molecular rather than turbulent signifi-cance, whereas K_x may have turbulent significance. Thus, relation between the two will be particularly high.

50T81

STOKMAN, V.B.

IC

USSR/Oceanology
Heat - Conductivity

Jan 1946

"On the Thermal Regime of the Kuroshio," V. B.
Stokman, 25 pp

"Trudy Institute Okeanol" Vol I

Analyzes temperature observations on the section
off Siono Misaki in attempt to characterize the
thermal regime of the Kuroshio. Computes vertical
changes of the coefficient of turbulent heat-
conductivity by Fjeldstad's formula. Determines
changes with time showing large yearly variation,
at the 100-m depth. Calculates approximate value
of advective heat-flow in the 0- to 200-m layer,

USSR/Oceanology (Contd)   Jan 1946

and the mean value of the horizontal temperature
gradient, and qualitatively analyzes local changes
of temperature at different depths of the section.

IC

50T80

SHTOKMAN, V. B.

"Theory of Equatorial Counter-Currents in Oceans," Iz Akademii Nauk SSSR, Ser Geograf i Geofiz
Vol X, No 6, 1946 (517-527).
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

", The Table 1 Explanation of Certain Peculiarities of the Meridian Profile
of the Surface of the Profile Cores,"   Dok.AN,
53, No. 4, 1946. Inst. of Oceanol., Acad. Sci. -1946-.

SHTOKMAN, V. L.

"Observed Peculiarities of Coastal Circulation in the Sea and Their Connection with the Transverse Irregularity of the Wind," Doklady Akademii Nauk SSSR, Vol 54, No 3, 1946 (227-230).
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

SHTOKMAN, V. B.

"Equations for the Field of Complete Currents which are Excited by Winds in a Heterogeneous Sea," Doklady Akademii Nauk SSSR, Vol 54, 1946 (407-410).
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

"The Field of Flow in a Jet as Described in Terms of the Equation for a
Rational Plate Under Bending Stress,"   Dok.AN,
5, No. 1, 1944. Inst. Control., Acad. Sci. cl.944-.

CHICHLAN, V. V.

"Circulation Excited by Winds at the Deepest Parts of the Caspian Sea," Meteorol.
i Gidrol. No 2, pp 42-50, 1947

SHTOKMAN, V. V.

"Dissipation of Energy of Stationary Currents Which are Excited by a Non-equilibrial Wind in a Closed Homogeneous Sea," pp 53-64.
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

So: U-3218, 3 Apr 1953

SHTOKMAN. V. F.

"Are Counter-Currents Possible in a Shoreless Sea Which are Due to Local Non-uniformity of Winds," No 5, pp 83-91.
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

SHTOKMAN, V.B.

"Effect of Bottom Topography on the Diredtion of Currents in the Sea. Priroda,
11, (1947), 10-23.

SO: Translation-252467, 30 Apr 1954.

SHTOKMAN, V. B.

Shtokman, V. B.

Theoretical Model For the Circulation on The Surface of The Ocean
in Regions of The Equatorial Counter Current

Doklady Akademiya Nauk, SSSR
Vol. 57, 1947, pp. 669

From: B. N. L. Guide to R.-Scientific Per. Lit. No. 2, Vol. 1, May 1948, p. 22

SHTOKMAN, V. B.

USSR/Hydrology   Oct 1947
      Oceanology
      Currents, Ocean

"New Indicators of the Significance of the Irregu-
larity of the Wind as One of the Reasons for Circu-
lation in the Sea," V. B. Shtokman, Inst Oceanology
Acad Sci USSR, 4 pp

"Dok Akad Nauk SSSR" Vol LVIII, No 1

Irregularities in the wind are proposed as an ex-
planation for the observed discontinuous character
of occurrence of equatorial counter currents on the
surface of the ocean, when counter currents exist

USSR/Hydrology (Contd)   Oct 1947

                                                                       52T38

in the form of separate, comparatively short length,
and are not spread as a continuous strip of large
zonal expanse. Submitted by Academician P. P. Shir-
shov, 28 Apr 1947.

52T36

SHTOKMAN, V. B.

   "Equatorial Counter Currents in Oceans (Ekvatorial'nyye protivotechniya v
okeanakh), Gidrometeoizdat, Leningrad, 1948, 155 pages.

SHTOKMAN, V. B.   PA 43/43T92

USSR/Oceanography   Feb 1948
    Meteorology

"Relation between the Field of Wind, Field of Over-
all Currents and the Intermediate Field of Masses in
a Heterogeneous Ocean," V. B. Shtokman, Inst Ocea-
nology, Acad Sci USSR, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 4
                                    pp 675-678

Shows that original theory of horizontal circulation
in heterogeneous ocean is inadequate, and estab-
lishes new set of equations for various conditions.
Submitted by Academician P. P. Shirshov, 9 Dec 1947.

                                              43T92

Translation 2524467, 30 Apr 54

SHTOKMAN, V. B.

Stokman, V. B. The influence of the profile of the bottom on the direction of the mean current excited by the wind or the field of a mass in an inhomogeneous ocean. Doklady Akad. Nauk SSSR (N.S.) 59, 889-892 (1948). (Russian)

Source: Mathematical Reviews.   Vol 10, No. 9

SHTCKMAN , 5.

7.8–180   551.556:551.461 (264)

Shtokman, V. B. Znachenie vetra i rel'efa dna v obrazovanii nabliudaemykh osoben-nostei dinamicheskoi topografii iuzhnoi chasti Atlanticheskogo okeana. [Significance of wind and bottom relief in the formation of the dynamic characteristics of the southern part of Atlantic Ocean.] *Akademiia Nauk SSSR, Doklady*, 60(6):985–988, May 1948. 3 figs., 4 refs., 5 eqs. DLC—Features clearly expressed by the undulating contours of dynamic sur-faces crossing the ocean from W to E between latitudes 25–40°S and by closed ring-shaped regions of dynamic heights, resembling a series of vortexes inside the wavelike belt, are shown on a topographic chart of the South Atlantic surface according to A. DEFANT's numerous observations (on the "Meteor"). As indicated by DEFANT, this chart of dynamic topography of the ocean's surface is astonishingly similar to, and is linked with, the underwater relief of the region which is characterized by alternating elevations and depressions of the ocean's bottom as shown by a chart representing the bathometry of the region. The observed regu-larities are explained in the light of the author's earlier theory of stationary currents stirred up by winds in a heterogeneous sea. *Subject Headings:* 1. Wind effects 2. Sea surface contours 3. South Atlantic.—*A.M.P.*

1.   SHTOKMAN, V.B.

2.   USSR (600)

4.   Ocean Currents

7.   Studying the effect of wind and bottom profile on resultant circulation and
     distribution of masses in a non-homogeneous ocean or a sea.
     Trudy Inst. okean. 3. 1949

9.   Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

SHULEIKIN, V. V.

Ocean Currents

On the theory of ocean currents, Met. i gidrol, No. 5, 1940.

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

SHTOKMAN, V. B., Prof

PA 152T83

USSR/Oceanography - Sea Bottoms   Nov 49
                    Sea Currents

"Influence of the Relief of the Sea Bottom on
the Direction of Sea Current," Prof V. B.
Shtokman, 14 pp

"Priroda" No 11

Shtokman has formulated a new theory on the in-
fluence of the sea bottom on direction of sea
currents. Points out cases where Ekman and
Sverdrup's theories do not hold. Basis of the
theory advanced is the following rule: When an
elevation of the bottom is intersected by a

USSR/Oceanography - Sea Bottoms   Nov 49
                    (Contd)

                                         152T83

flow, the flow line twists around the top in
a direction corresponding to a whirlwind in a
wind field; when a depression of the bottom is
intersected by a flow, the flow line twists
over its central part in the opposite direction.

152T83

SHTOKMAN, V. B.

USSR/Meteorology - Winds   1 Mar 50

"Determining the Flow Velocities and Density Distri-
bution in the Cross Section of an Infinite Channel,
in Dependence Upon the Wind Effect and Lateral Fric-
tion in a Coriolis-Force Field," V. B. Shtokman,
Inst of Oceanol, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXI, No 1, pp 41-44

Shtokman sets up and solves equations for x and y
components, S_x and S_y, of total flow $\vec{S}$ in barocline
sea, also quantity Q, involving density of flow.
Gives example of iso-lines drawn on cross section 300
m deep and 100 km wide, using these equations. Sub-
mitted 14 Nov 49 by Acad P. P. Shirshov.

165T35

Translation 2524467 - 30 Apr 54

SHToKMAN, V. B,

S.3-222
551.556:551.465
SHtokman, V. B., Opredelenie statsionarnykh techenii i polia mass, obuslovlennykh vetrom v baroklinnom more. [Stationary currents and field of masses due to wind in a baroclinic sea.] *Akademiia Nauk, SSSR, Institut Okeanologii, Trudy,* v. 6:3–48, 1951. 19 figs., 7 tables, 19 refs., eqs. DLC—Comprehensive theoretical study for which the author applied results of previous investigations throughout the world and also his own ideas. The characteristics of lateral currents due to wind are presented in the first part. In Pt. 2 the author analyzes effect of lateral friction in the field of Coriolis force and distribution of density and velocity of flow due to wind for some weather situations. *Subject Heading:* 1. Wind driven currents.—*N.T.Z.*

SHTOKMAN, V. V.

USSR/Geophysics - Sea Currents   Sep/Oct 52

"Application of Method of Full Currents to Com-
putation of the Circulation Produced by an
Irregular Wind in a Sea of Elliptical Shape,"
V. V. Shtokman, Inst of Oceanol, Acad Sci USSR

"Iz Ak Nauk SSSR, Ser Fiz" No 5, pp 57-68

In his previous works "Dok Ak Nauk SSSR" 54,5
1946; 59.4, 1948; "Trudy Inst Okeanol, Ak Nauk
SSSR" 3, 1949) the author attempted to show that
computation of full current in the sea has

226T59

advantages over computations of velocities of
current on sep levels. Results show that full
currents in the middle of transversal sections
of closed sea of elongated shape may, without
considerable error, be substituted by an in-
finite rectilinear channel. Received 14 Dec 52.

226T59

SHTOKMAN, V. B.

USSR/Geophysics - Sea Currents　　　　　　Nov/Dec 52

"Determining Steady-State Currents and Density Dis-
tribution in the Middle Cross Section of a Closed
Sea Elongated in Form," V. B. Shtokman, Inst of
Oceanol Acad Sci USSR

"Iz Ak Nauk SSSR, Ser Geofiz" No 6, p 57-72

Expounds method of computing total currents in
middle cross section of closed sea extended in
direction of wind. It is possible to replace
elongated sea by rectilinear channel bounded at
infinity, for any cross sectional nonuniformity

of wind. Computes densities of water in cross sec-
tion of elongated sea. Proposes general model of
density distribution. Indicates method to find
coeff of lateral turbulent friction from density
and current-velocity calcns.

PA 237T50

237T50

237T50

SHTOKMAN, V. B.

USSR/Geography - Sea Currents   Aug 52

"Magnitude of Deviation of Sea Currents Which Results From Relief of the Bottom," V. B. Shtokman, Moscow Inst of Oceanol

"Meteorol i Gidrol" No 8, pp 13-19

Previous investigations by author (cf. "Priroda" 11, 1949; Meteorol i Gidrol" 6, 1949; Trudy Inst Okeanol, Ak Nauk SSSR" 3, 1949) differ from the formerly accepted theory of Ekman, with whom author polemizes. He develops a new theory of current deviation due to the relief of the sea bottom. But he

considers this theory incomplete, until the soln of the math problem of lower boundary of flow excited by wind.

229T75

229T75

SHTOKMAN, V. B.   PA 241T36

USSR/Geophysics - Sea Currents   Jan/Feb 53

"Some Problems of the Dynamics of Sea Currents," V. B.
Shtokman, Inst of Oceanology, Acad Sci USSR

"Iz Ak Nauk SSSR, Ser Geofiz" No 1, pp 69-77

Investigates the influence of latitudinal variation of
Coriolis parameter in the distribution of complete
flows and densities in mean cross-section of a river
elongated along the wind form. Indicates that in-
fluence of latitudinal variation of Coriolis parameter
is minor for small transverse dimensions of internal
rivers. Qualitatively evaluates thickness of the bar-
oclinal layer in the limits of which the circulation
in the ocean caused by wind is realized.   241T36

SHTOKMAN,V.B., doktor fiziko-matematicheskikh nauk, professor

Effect of lateral irregularity of drifting ice on horizontal circulation in the ocean. Metero, i gidrol. no.2:20-24 F '53.

(MLRA 8:9)

1. Institut okeanologii Akademii nauk SSSR.
(Icebergs)

SHTOKMAN, V. B.   Jul/Aug 53

USSR/Geophysics - Ocean Currents

"Model of Complete Currents Excited by Winds on a Sea," V. B. Shtokman, Inst of

Oceanology, Acad of Sci USSR

Iz Ak Nauk SSSR, Ser Geofiz, No 4, pp 324-334

Considers the analogy between (a) traverse flexures produced along the border of a flat

plate and (b) the distribution of complete flows excited by winds on the sea. Discusses

the modeling principles based on this analogy. Shows the possibility of taking into

account the latitudinal variation in the Coriolis force during modeling.

265 T82

"Influence of the Relief of bottom and Transverse Inhomogeneity of Wind Upon Horizontal Circulation in a Small Sea or Reservoir," Meteorol. i Gidrologiya, No 6, 1955, p. 21 - 23.

The author investigates the problem of countercurrents due to the transverse inhomogeneity of the wind and to the unevenness of the cross section of the bottom in small reservoirs drawn out in the direction of the wind. Just as in an earlier work of the author (Izvestiya AN SSSR, seriya geogr. i geofiz, No 1, 1941) the author finds the solution to the equation $\mu u_{zz} + \rho g \gamma = 0$ (sic), where μ is the constant coefficient of internal turbulent friction, rho is the density of water, and gamma is the angle of longitudinal inclination of the water in the direction of the wind, which angle is averaged in the transverse direction. The difference from the mentioned work consists in the boundary conditions which are given at the bottom (cross section of the bottom is represented by an arbitrary curve) and at the surface of the water. He presents analytical and graphical (for a concrete example) investigations into the integral of the equation. He shows that the countercurrents in the cross section of a small sea of variable depth depend both upon the transverse inhomogeneity of the tangent friction of wind and upon the depth in one or another position of the cross section; here the countercurrent can with greater probability be expected in channel-shaped depression in the bottom of a small sea. He emphasizes that an essential difference exists between the distribution of countercurrents in a real sea with variable bottom relief and that in an ideal sea of constant depth. He finds an expression for the tangent stress at an arbitrary point of the sea bottom; he uses it for finding points of ground erosion. (RZhGeol, No 6, 1955) SO: Sum.No. 713,
9 Nov 55

STOKMAN, V. B.

Stokman, V. B. On the computation of the "lateral" friction in the dynamics of ocean flows (criticism of Hidaka's results). Dokl. Akad. Nauk SSSR (N.S.) 88, 795–798 (1953). (Russian)

L'auteur montre en se basant sur ses recherches antérieures que l'étude de la circulation horizontale provoquée par le vent dans un océan non homogène nécessite la résolution d'une équation aux dérivées partielles de la forme

$$(1) \qquad \frac{\partial^4 \psi}{\partial x^4} + 2\frac{\partial^4 \psi}{\partial x^2 \partial y^2} + \frac{\partial^4 \psi}{\partial y^4} = -\frac{\text{rot } \tau(x, y)}{A_l}$$

avec les conditions initiales $\psi = 0$, $\partial \psi / \partial n = 0$ le long du contour L où n est la normale au contour. M. Hidaka résout cette équation en négligeant le terme $2\partial^4 \psi / \partial x^2 \partial y^2$ et en ajoutant un terme provenant de la fonction de Coriolis. L'auteur montre en introduisant les coordonnées polaires que, tandis que la solution de (1) peut admettre une symétrie sphérique, les solutions obtenues par M. Hidaka n'admettent pas des solutions pareilles.

M. Kiveliovitch (Paris).

SHTOKMAN, V. B.

USSR/Geography   Climatic fluctuations

Card   : 1/1   Pub. 45 - 3/20

Authors   : Shtokman, V. B.

Title   : Circular currents around islands and reverse flows at the shores of straits

Periodical   : Izv. AN SSSR. Ser. geog. 4, 29 - 37, July - August 1954

Abstract   : The reasons for circular currents around islands and reverse currents
                at the shores of straits, are explained scientifically. The effects of
                Coriolis forces and wind on the movement of sea waters, are discussed.
                Five references: 4 USSR and 1 English (1947 - 1953). Drawings.

Institution   : Acad. of Sc. USSR, Institute of Oceanology

Submitted   : ....

SHTOKMAN,V.B.; TSIKUNOV,V.A.

Development of absolute currents in the ocean by wind action.
Trudy Inst. okean. no.9:5-22 '54.   (MLRA 8:6)
                    (Ocean currents)

Shtokman. V. B.

... counter currents developed earlier by the author ... the distribution of the zonal constituents relating ... the determine the meridional boundaries ...

... current in the Pacific Ocean were determined ... this current is most developed ... the season and its meridional boundaries are most clearly evident. The equations and procedure for calculating the boundaries are presented and the results are given ... It was found that theoretical calculations and actual observations show ... quantitative correspondence quantitatively the agreement ... driven currents. 2. Pacific Ocean. — I.L.D.

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and the gradient of atmospheric pressure. Trudy Inst. okean. 25:153-
170 '57.   (MIRA 11:2)

(Ocean currents)

SHTOKMAN, V.B.

Wind influence on currents in the Bering Strait, causes for their
high velocities and their prevailing northern direction. Trudy Inst.
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(Bering Strait—Ocean currents)

FEL'ZENBAUM, Aleksandr Isayevich; SHTOKMAN, V.B., prof., otv.red.;
     GUROV, Kh.P., red.izd-va; TIKHOMIROVA, S.G., tekhn.red.

[Theoretical foundation and methods of calculating steady
currents in the sea] Teoreticheskie osnovy i metody rascheta
ustanovivshikhsia morskikh techenii. Moskva, Izd-vo Akad.nauk
SSSR, 1960. 126 p.   (MIRA 13:11)
                    (Ocean currents)

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Follow-up to O.I.Mamaev's article "T, S analysis of moving water
masses in the ocean which are limited in respect to the vertical.
Okeanologiia   2   no.5:949   '62.   (MIRA 15:11)
                                    (Ocean currents)