

Concerning the Influence of the Temperature of
a Liquid on the Cavitation Characteristics
of a Centrifugal Pump, 10 pp;

by *M. A. Peshkin*
RUSSIAN, per, *Teploenergetika*, No 2, 1958,
pp 47-51. 9673069

FD-FF-61-52

Sci - Phys

3 Mar 62

186,173

Creep in Semi-Annular Plates, by P. Ya.
Boguslavskiy.

RUSSIAN, per, Teploenergetika, No 2, 1958,
pp 56-61.

BISI 1441

Sci - Engr

Jun 61

158,542

Zelenskiy, V. G.

RESISTANCE OF SOME MATERIALS TO EROSIVE
WEAR BY A FLOW OF WATER THROUGH A SLIT,
tr. by J. K. Skwirski. July 60 [19]p.
[DSIR LLU] M.2320.

Order from LC or SLA m1\$2.40, ph\$3.30 - 61-15462

Trans. of Teploenergetika (USSR) 1958, v. 5, no. 2,
p. 63-69.

Several materials were subjected to erosive wear by
a flow of water through a slit. The erosion resistance
of investigated materials is compared with that of
steel E Ya 1 T. Factors influencing the wear of
materials are considered and recommendations are
given for the choice of materials for particular arma-
ture parts as well as for seeding pumps. (Translator)

(Metallurgy--Corrosion, TT, v. 5, no. 12)

61-15462

1. Fluid flow--Corrosive effects
 2. Water--Corrosive effects
 3. Metals--Corrosion
- I. Zelenskiy, V. G.
 - II. DSIR LLU M.2320

100610

Office of Technical Services

The Effect of the Temperature Factor on Heat
Transfer in the Turbulent Flow of a Gas in
Pipes, Part I, by N. I. Ivashchenko, 10 pp.

TRANSLATED, from, Teplotenergetika, No 2, 1958,
pp 72-81. 9205090.

AEC/AERE TR 911

Sci - Phys

May 63

830916

Experimental Investigation of the Effect of
Vibration of Heat Transfer During Boiling, by
V. F. Kovalenkov. UNCLASSIFIED

RUSSIAN, per, Teploenergetika, No 2, 1958, pp 76, 77.

✓
DSIR/TCL 110

Sci - Phys

Co-op Tr Sch 595

Nov 58

82,019

Boiling of Freon 11, Methylene Chloride and
Benzene on a Horizontal Pipe, by V. G. Fastovskiy,
et al. UNCL

RUSSIAN, par, Teplotekhnika, No 2, 1958,
pp 77-80.

DSIR LIU RES 1026

10s.

Sci - Chem
Jun 59

88,476

63-12380

Gel'man, L. I.
HEAT EXCHANGE BY DROP CONDENSATION OF
MERCURY VAPOR [Teploobmen pri Kapel'noi Kon-
densatsii Rzutnogo Para]. 1962, 8p.
Order from MUL \$8.50 MUL-T62-2

Trans. of Teploenergetika (USSR) 1958, v. 5, no. 3,
p. 47-50.

DESCRIPTORS: *Heat exchangers, *Mercury, Vapors,
Condensation, Power plants, Heat transfer.

(Physics--Thermodynamics, TT, v. 9, no. 2)

- I. Gel'man, L. I.
- II. MUL-T62-2
- III. Mulholland Engineering
Translations,
Cincinnati, Ohio

*AEC-APIL-TI-11
(97-4661)*

Office of Technical Services

Long-Term Strength of Tubes Under Complex Loads,
by B. V. Zver'kov. UNCLASSIFIED

RUSSIAN, per, Teploenergetika, No 3, 1958,
pp 51-55

Co-op Tr Sch 593

Sci - Engr

Mar 59

82, 413

Certain Problems Concerning the Theory of Heat
Exchange in the Laminar Flow of a Fluid in Pipes,
by B. A. Lavuntsov.

RUSSIAN, per, Teploenergetika, No 3, 1958, pp 55-60.
9661807.

ATTC F-TS 9958/V

Sci - Phys
Jun 61

155,521

61-15630

Tulin, S. N.
HEAT TRANSFER AND RESISTANCE IN BUNDLES
OF WIRE-FINNED TUBES (Teplootdacha i
Soprotivleniye v Puchkakh Trubok s Provolochnym
Orebreniyem). Jan 61 [17]p. 5 refs. RTS 1728.
Order from LC or SLA ml\$2.40, ph\$3.30 61-15630

Trans. of Teploenergetika (USSR) 1958, v. 5, no. 3,
p. 67-72.

A description is given of an experimental investigation
of the heat transfer and aerodynamic resistance of
bundles of wire-finned tubes. Generalized empirical
numerical formulae are recommended. (Author)

(Metallurgy--Nonferrous Metals, TT. v. 5, no. 8)

1. Brass tubing--Heat transfer
2. Brass tubing--Aerodynamic characteristics
3. Copper wire--Heat transfer

- I. Tulin, S. N.
- II. RTS-1728
- III. Department of Scientific and Industrial Research (Gt. Brit.)

151663

152, 090

Office of Technical Services

About Fluxing of Coals With the High Heat
Melting Ashes at Cyclone Method of Fuel
Burning, by I. J. Zalkind, et al. UNCL

RUSSIAN, per, Teploenergetika, No 4, 1958,
pp 34-41.

Co-op Tr Scheme 554

Sci - Min/Met
Mar 59

Equation of State, Thermodynamic Functions and
Standard Tables for Water and Superheated Steam
to 1000 atm. and 1000°C, by M. P. Vukalovich, et al.

RUSSIAN, per, Teploenergetika, No 4, 1958, pp 46-52.

Infosearch Ltd.

Sci - Phys
Sep 59

96,401

ⁱⁿ
Experimental Investigation of the Compressibility
of Water and Steam Near the Critical Temperature
Range, by V. A. Kirillin, et al.

RUSSIAN, per, Teploenergetika, No 4, 1958, pp 53, 54.

Infosearch Ltd.

Sci - Phys
Sep 59

96,402

Water and Steam Contents in Surface Boiling of
Water, by P. G. Poletavkin, N. A. Shupkin, 6 pp.

RUSSIAN, near, Teploenergetika, Vol V, No 4, 1978,
pp 58-59.

ARRR Lib 7c 804

Sci - Phys

May 59

8/6, 1/61

On Heat Exchange at Turbulent Flow of Liquid in
Tubes, by B. S. Petukhov, V. V. Kirillov.
UNCL

RUSSIAN, per, Teploenergetika, No 4, 1958,
pp 63-69. 9662676

possible *ATIC F-TS-9959/V

Co-op Tr Scheme 613

Sci - Phys
Mar 59

82,522

Accounting for the Effect of Unstable Conditions
at the Convective Heat Exchange, by E. A.
Sidorov.

RUSSIAN, per, Teploenergetika, No 4, 1958, pp 79,
80. 9662616.

ATIC PTS-9959/1

Sci - Physics

Jul 61

159,264

Experimental Relations for the Heat-Transfer
Coefficient in Steam-Turbine Condensers, by
L. D. Berman.

RUSSIAN, per, Teploenergetika, Vol V, No 4,
1958, pp 82-86.

DSIR LLU M.1368
(loan)

Sci - Phys

Sep 60

125,587

Gasification of Pulverized Coal at High
Intensity in a Bed of Lump Fuel Under
Pressure, by Kh. I. Kolodtsev, V. I. Babii.
UNCL

RUSSIAN, per, Teploenergetika, Vol V, No 5,
1958, pp 25-31.

DSIR LLU (loan) M.406

Sci - Fuels
Aug 59

94, 845

Thermal Characteristic Curves for Heat Exchangers, by
E. Ya. Sokolov. UNCL

RUSSIAN, per, Teploenergetika, No 5, 1958, pp 38-43.

Address

M. Tollemache - 52
The Old Rectory
Lewknor, Oxon.

CSIRD

Sci - Phys

Jan 59

Determination of Steam Humidity at High Pressures,
by A. V. Ratner, V. G. Zelenskiy. UNCL

RUSSIAN, per, Teploenergetika, Vol V, No 5,
1958, pp 44-46.

DSIR LLU RTS 1002

7s. 6a.

Sci - Engr
Aug 59

94, 8 31

Heat Transfer in Surface Boiling of Water, by
P. G. Poletavkin, N. A. Shapkin, 12 pp.
G.
RUSSIAN, per, Teplotekhnika, Vol V, 1958,
pp 49-54.

AEC/AERE Lib Tr 819

Sci - Phys

May 59

87,903

Calculation of the Limiting Temperature for
Regenerative Feedwater Heating, by A. I.
Andryushchenko. UNCL

RUSSIAN, per, Teplotekhnika, No 5, 1958,
pp 57-61.

DSIR LLJ RTS 1061

12a. 6a.

88,477

Sci - Phys
Jun 59

Long-Term Strength of Cylindrical Bodies
Weakened by Apertures, by A. A. Zakharov,
and M. Kaba. Izv.

RUSSIAN, Engl. transl., Teplotekhnika, No 6, 1956,
pp 52-55.

M. Tollemache - 53
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Lecknor, Oxon.

Sci - Phys; ENG
Apr 59

84, 224

Investigation of Separation of Solid Particles in
Suspension on to a Film of Liquid from a Stream
Moving in a Vortex, by V. E. Maslov, et al.

RUSSIAN, tr. in English, No 6, 1958, pp 63-71.

Co-op Trans Set (29)

Sci - Physics
Mar 59

82,478

The Hydraulic Frictional Resistances to the
Flow of a Mixture of Steam and Water in a Straight
Horizontal Tube, by S. I. Kosterin, B. I.
Shevmin. UNCL

Russian
USSR, per, Teploenergetika, No 6, 1958,
pp 71-76.

MLL 114384
DSIR LIU RTS 1062

15s. 04.

94, 825

Sci - Phys
Aug 59

62-25461

Kirillin, V. A.
ON INTERNATIONAL COLLABORATION IN THE
FIELD OF RESEARCH ON THE THERMODYNAMIC
PROPERTIES OF STEAM (O Mezhdunarodnom Sotrud-
nichestve v Oblasti Issledovaniy Termodinamicheskikh
Svoystv Vodyanogo Para). May 62 [10]p. RTS 2057.
Order from OTS or SLA \$1.10 62-25461

Trans. of Teploenergetika (USSR) 1958 [v. 5] no. 7,
p. 3-6.

DESCRIPTORS: *Conferences, *Steam, *Thermodyn-
amics, Scientific research.

(Physics--Thermodynamics, TT, v. 9, no. 3)

I. Kirillin, V. A.
II. RTS-2057
III. Department of Scientific
and Industrial Research
(Gt. Brit.)

Office of Technical Services

Investigation of the Thermal Capacity of Steam
 C_p Up to 700 atm. and 700°C, by M. P. Vukalovich,
et al.

RUSSIAN, per, Teploenergetika, No 7, 1958,
pp 7-9.

DSIR LIU RTS 1538

Sci - Engr

Oct 60

1301721

Thermal Capacity and Enthalpy of Steam at Super-critical Pressures, by A. M. Sirota.

RUSSIAN, per, Teploenergetika, No 7, 1958, pp 10-13.

DSIR LLJ RTS 1539

Sci - Engr

Oct 60

13 0,723

Specific Heat C_p of Steam on the Saturation
Line, by A. E. Sheindlin, et al.

RUSSIAN, per, Teploenergetika, No 7, 1958,
pp 13-17.

DSIR LLU RTS 1540

Sci - Chem, Engr

Oct 60

128,859

Contribution to the Problem of Thermal (Calorific)
Quantities of Steam in the Ideal Gaseous State, by
V. S. Siletskiy.

RUSSIAN, per, Teploenergetika, No 7, 1958,
pp 18-21.

DSIR LLJ RTS 1541

Sci - Engr

Oct 60

128,727

An Equation of μ State for Steam, by Ya. Z.
Kazavchiuskiy, O. I. Katkhe.

RUSSIAN, per, Teploenergetika, No 7, 1958, pp 26-30.

NLL RTS 2058

Sci - Engr

Aug 62

207,200

Experimental Investigation of the Thermodynamic
Properties of Freon - 142, by L. I. Cherneyeva.

RUSSIAN, per, Teploenergetika, No 7, 1958,
pp 38-43.

NLL RTS 2033

Sci - Engr

Aug 62

207, 201

Direct-Flow Boiler With Washing and Separating
System, by I. I. Koshelev. UNCL

RUSSIAN, per, Teplotnergetika, No 7, 1958,
pp 55-53.

DSIR LIU RTS 1054

Ll. 2s. 6a.

Sci - Engr
Sep 59

95, 890

A Steam Jet Method for Measuring Clearances in
Steam Turbines, by Ya. M. Rubinshtein, M. A.
Trubilov.

RUSSIAN, per, Teploenergetika, No 7, 1958,
pp 68-74.

DSIR LIU M.929
(loan)

128,758

Sci - Engr

Oct 60

IMPROVING THE WATER-TIGHTNESS OF STEAM TURBINE
CONDENSERS FOR INSTALLATIONS WITH SUPER-HIGH AND
SUPERCRITICAL STEAM PARAMETERS, BY L. D. BERMAN,
S. N. FUKS.

RUSSIAN, PER, TEPLOENERGETIKA, NO 8, 1958, PP 25-31.

NLL M. 3864

SCI - ENGR

NOV 62

217,683

temperature variations in High Pressure Boiler
Drums and Their Treatment, by I. A. Meshchaninov,
G. P. Malchuk, 2 pp.

RUSSIAN, per, Trivocenergetika, Vol V, No 8, 1958,
pp 44-45.

SIA 59-22866

Sci
Jan 62
Vol. III, No 10

181, 258

Excessivity of Boiler Furnace Slags, by S. G.
Agaba'ov. UNCL

RUSSIAN, per, Teplenergetika, No 8, 1958,
pp 56-60.

DSIR LIA RTS 1052

Sci - Engr
Jul 59

90,690

An Experimental Study of the Viscosity of
Methane, by N. V. Pavlovich, D. L. Timrot.

RUSSIAN, per, Teploenergetika, No 8, 1958,
pp 61-65.

ALL RTS 2034

Sci - Engr

Aug 62

207,202

Mass Exchange in Horizontal Tube Condenser With
Steam Containing Air, by L. D. Berman, S. N. Fuks.

RUSSIAN, per, Teploenergetika, Vol V, No 8,
1958, pp 66-74.

DSIR LLU M.901
(loan)

Sci - Engr

Oct 60

Sergey S. Lee
128,905

Experimental Investigation of the Critical
Thermal Load When Binary Mixtures are Boiled,
by V. J. Fastovskiy, R. I. Artym.

RUSSIAN, per, Teploenergetika, Vol V, 1958,
pp 74-78.

TIL T 5218
NLL M.3445
181,304

Sci - Phys

Jan 62

An Investigation of Velocity Thermo-Couple as a
Correcting Link in a System for the Automatic
Control of Steam Superheat Temperature, by Yu. I.
Sitintskiy. UNCL

RUSSIAN, per, Teploenergetika, No 9, 1958,
pp 30-33.

DSIR LRU RES 1048

Sci - Electricity
Jul 59

90,691

62-13744

Deich, M. E. and Zaryankin, A. E.
AN APPROXIMATE METHOD OF CALCULATING TIP
LOSSES (Priblizhennyi Metod Rascheta Kontsevykh
Poter'). Dec 61 [9]p. 4 refs. RTS 1973. 62-13744
Order from OTS or SLA \$1.10

Trans. of Teploenergetika (USSR) 1958 [v. 5] no. 9,
p. 57-60.

DESCRIPTORS: *Turbine blades, Tests, Energy,
Pressure, Fluid flow, Turbulent flow, Boundary layer,
Turbulent boundary layer, Laminar boundary layer,
Numerical analysis.

An approximate method of calculating tip losses in
turbine cascades is proposed. Calculated and experi-
mental data are compared. (Author)

(Machinery--Engines, TT, v. 7, no. 8)

I. Deich, M. E.
II. Zaryankin, A. E.
III. RTS-1973
IV. Department of Scientific
and Industrial Research
(Gt. Brit.)

201383

Office of Technical Services

Chemical and Phase Composition of Slag in TP-240 Boiler
Operating Under 185 Atm. Pressure, by Yu. V.
Zenkevich, N. Ya. Karasik.

RUSSIAN, per, Teploenergetika, Vol V, No 9, 1958,
pp 68-70.

NLI Ref: 9022.09 1963 (3093) (Loan)

Sci
Feb 64

Heat Transfer From the Wall to a Turbulent
Flow of Air Inside a Tube With Large Temperature
Differences and a Method for Calculating Wall
Temperature, by D. V. Dyadyakin, V. L. Lol'chuk.
UNCL

RUSSIAN, per, Teploenergetika, No 9, 1958,
pp 74-79.

118,745
BISI 1714

(IA. 5B.Od.)

118,745

Sci - Phys
Jun 60

Determining the SO₂ Content in Boiler Flue Gases,
by B. A. Chertkov, D. L. Puklina.

RUSSIAN, par, Teplotenergetika, Vol V, No 9,
1958, pp 87-89.

DSIR LLU M.597
(loan)

Sci - Chem

SIA 59-22651

122,568

Aug 60

61-23281

Chernyshev, N. A.
EFFECT OF ROTATION ON THE OPERATION OF
VALVES IN CONTROL SYSTEMS (O Vliyani
Vrascheniya na Rukotu Zolotnikov Sistem Reguliro-
vaniya). [1961] [16]p. (foreign text included) 9 refs.
[DSR 111] [M 2596]
Order from OIN or SLA \$1.60

61-23281

Trans. of Teploenergetika (USSR) 1959 [v. 5] no. 10,
p. 30-34.

DESCRIPTORS: *Rotary valves, *Control systems,
*Steam turbines, Performance.

The paper puts forward the principles of the operation
of rotating valves, and reviews the effect of rotation
on the regulating properties of valves, and the leakage
of oil through the clearance between the sleeve and the
valve. (Author)

(Engineering--Mechanical, TT, v. 6, no. 3)

I. Chernyshev, N. A.
II. DSR 111 M 2596

275360

Office of Technical Services

The Optimum Conditions for Regenerating
H-Cationite Filters With Different Cationites,
by F. G. Prokhorov, T. A. Kurskaya.

RUSSIAN, per, Teploenergetika, No 10, 1958,
pp 35-42.

DSIR LLU RTS 1542

Sci - Engr

Oct 60

128,729

An Experiment on the Preparation of a Magnesite Sorbent and the Removal of Silicate From Water for Feeding High Pressure Boilers, by A. P. Mamet, A. V. Nikolayev.

RUSSIAN, per, Teploenergetika, No 10, 1958, pp 42-46.

DSIR LLJ RTS 1543

Sci - Chem, Engr

128,861

Oct 60

Removal of Silicates From Water by Magnesite
Sorbent Developed by VODGEO Institute, by V. M.
Kvyatkovskiy, A. I. Baulina.

RUSSIAN, per, Teploenergetika, No 10, 1958,
pp 46-51.

DSIR LLU RTS 1544

Sci - Chem, Engr

128,855

Oct 60

Influence of the Dwell Time of Water in an
Accumulator Tank on the Efficiency of Oxygen
Separation, by I. K. Grishuk, et al.

RUSSIAN, per, Teploenergetika, No 10, 1958,
pp 51-53.

DSIR LLU RTS 1545

Sci - Chem, Engr

128,856

Oct 60

Prevention of Oxygen and Carbon Dioxide Corrosion
of Power Equipment by Means of Octadecylamine, by
P. A. Akol'zin, et al.

RUSSIAN, per, Teploenergetika, Vol V, No 10, 1958,
pp 54-55.

NLL M. 1456
OTS 62-29241
174,988

Sci - Chem

Dec 61

An Experimental Study of the Thermal Conductivity of Helium, 7 pp.

RUSSIAN, per, Teploenergetika, Vol V, No 10, 1958, pp 61-65.

AEC NP-tr-477

available from research staff
London a. TA-58/10.61
141,586

Sci - Chem
9 Mar 61

Calculations for Combined Pulverized Fuel
Burners With Central and Peripheral Gas Feed, by
Yu. V. Ivanov. UNCL

RUSSIAN, per, Teploenergetika, No 11, 1958,
pp 9-13.

DSIR LLU RTS 1049

12s. 6d.

Sci - Math; Engr
Sep 59

95, 491

The Use of Natural Gas as a Fuel, by K. F.
Roddatis.

RUSSIAN, per, Teploenergetika, Vol V, No 11,
1958, pp 29.

DSIR LLU M.902
(loan)

SLA 60-13776

Sci - Fuels

Aug 60

122,544

Approximate Method for Calculating the
Burnout of a Pulverised Coal Flame, by
V. V. Pomerantsev.

RUSSIAN, per, Teploenergetika, No 11, 1958,
pp 33-41.

NLL Ref: 9022.09 1964 (3431)
(loan copy)

Sci
Sep 64

Critical Heat Flux in Uniform and Non-Uniform
Heating of the Circumference of Steam
Generating Tubes, by Z. I. Miropol'skiy, I. L.
Mostinskiy. UNCL

RUSSIAN, per, Teploenergetika, No 11, 1958,
pp 64-69.

DSIR LIU RTS 1051

15a. Od.

Sci - Phys
Aug 59

94, 826

Heat Transfer of Banks of Pipes in a Transverse
Stream of a Free Flowing Solid (Sand)., by S. V.
Donskov.

RUSSIAN, per. Teploenergetika, No 11, 1958, pp
76-80.

NLL RTS 3546

Sci-Physics

Nov 67

345. 343

13 524

GF-1 At-1

MARGULOVA T. Kh.

Rational organization of water circulation in single-circuit
atomic energy plants with boiling water reactors

Die Wasserwirtschaft in einem Kraftwerk mit Siedewasser-
Reaktoren

Teploenergetika, 5, No. 12, 22-26 (1958)

Archiv für Energiewirtschaft, 351-360 (1959) - German

GF-1: German

At-1: Ph, 1960/61, No. 69 - German (See ref. 3033-"TB", 1, 5)

Abs.: NSA, 13, No. 24A, ref. 23089 (1959) - English

E u r a t o m

An Investigation of the Operation of Turbine
Blades at High Velocities, by M. E. Deish, A. V.
Gubarev.

RUSSIAN, per, Teploenergetika, No 12, 1958,
pp 56-62.

MLL RTS 2001

Sci - Engr

Jul 62

204,844

The Thermal Conductivity of Slags in the Solid and
Molten States, by N. B. Vargaftik, O. N. Oleschuk.
UHCL

RUSSIAN, per, Teploenergetika, No 12, 1958,
pp 79-85.

DSIR LIU RTS 1063

15s. Cd.

95, 839

Sci - Phys; Min/Met
Sep 59

Generalizations of the Experimental Data for the
Circulation of Water in Boilers, by G. E.
Kolodovskiy, 35 pp.

RUSSIAN, per, Teploenergetika, No 1, 1959,
pp 3-29. 9079921

AEC Tr-4659

Sci
Aug 61

164, 8 88

High-Power Boiler Installations of the
Podol'skiy Machine-Construction Works, by
O. N. Dobrynin, G. Ya. Mazharaup. UNCL

RUSSIAN, per, Teploenergetika, No 1, 1959,
pp 28-37.

DSIR LLU RTS 1290

(25a. 00.)

102,509

Sci - Engr
Dec 59

Study of Rupture Strength of Steam Pipe Welds
During Austenitization, by R. Ye. Mazel, 3 pp.

RUSSIAN, per, Teploenergetika, Vol VI, No 1,
1959, p 49.

SLA 60-13568

Sci

Apr 61

OES, Vol III, No 12

163,245

Aerodynamics of Fluidised Beds, by V. M. Dement'yev.

RUSSIAN, per, Teploenergetika, No 1, 1959,
pp 50-56. 9076306

DSIR LLU RTS 1524

Sci - Engr

Oct 60

128,728

61-13057

Kirillin, V. A. and Ulybin, S. A.
EXPERIMENTAL INVESTIGATION OF SPECIFIC
VOLUMES OF WATER AND WATER STEAM IN
THE REGION OF HIGH TEMPERATURES (Eksperi-
mental'noye issledovaniye Udel'nykh Ob'emov Vody i
Vodyanogo Para v Oblasti Vysokikh Temperatur).
[1960] 10p. 6 refs. M 1721.
Order from LC or SLA ml\$1.80, ph\$1.80 61-13057

Trans. of Teploenergetika (USSR) 1959 [v. 6] no. 1,
p. 62-65.

New experimental figures are given for specific vol-
umes of water and water steam at temperatures of
600, 620 and 650°C at 70 to 500 atm. The possible
reasons for errors in an earlier investigation at tem-
peratures of 620 and 650°C are also examined.
(Author)

(Engineering--Mechanical, TT, v. 5, no. 5)

1. Water power--USSR
 2. Water--Thermodynamic
properties
 3. Water vapor--Thermo-
dynamic properties
- I. Kirillin, V. A.
 - II. Ulybin, S. A.
 - III. DSIR LLU M. 1721

147,002

Office of Technical Services

Heat Transfer to Water, Oxygen and Carbon Dioxide
in the Approximate Critical Range, by M. E. Shitsman.

RUSSIAN, per, Teploenergetika, No 1, 1959, pp 68-72.

*UKAEA-windscale-Tr-57

Sci - Nucl Sci

Jul 63

on loan only

Heat Transfer During the Viscous-
Gravitational Flow of a Liquid Through
Pipes, by B. S. Petukhov and L. D.

Nol'de.

RUSSIAN, per, Teplotenergetika, 1959,
No 1, Vol 6, pp 72-80.

NLL RES 2640 (On Loan or Purchase)

CFSTI # 64-23532 on loan

Aug 65

286,984

The Effect of Inlet Conditions on the Critical
Heat Flux for the Case of Boiling Water in Tubes,
by Z. L. Miropol'skiy, et al.

RUSSIAN, per, Teploenergetika, No 1, 1959,
pp 80-83.

DSIR LLJ RTS 1525

Sci - Engr

128,730

Oct 60

An Investigation of the Critical Rate of Stripping
a Film of ~~Next~~ Moisture From the Wall of a Steam
Pipeline, by M. A. Morozov,

RUSSIAN, per, Teploenergetika, Vol VI, No 2, 1959,

DSIR LLU-M-1885 or
DSIR LLU RBS-1581.

Sci - Engr
May 62
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(NY-2900/2).

Electrical and Power Equipment
~~Steam Turbines of the Turbine Plant,~~
by L. A. Shubenko-Shubin, 21 pp.

RUSSIAN, per, Teploenergetika, No 2, 1959, pp 3-15.

JPRS-1798-N

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Method of Designing the Flow Section of Steam
and Gas Turbines, by A. M. Zavadovsky, Kh. L.
Babenko.

RUSSIAN, per, ~~Teploenergetika~~, Vol VI, No 2,
1959, pp 23-28.

DSIR LLU M.1891
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SLA 61-13211, 28,895

Sci - Engr

Oct 60

Polyatskin, M. A. and Svyatskiy, Z. M.
HIGHLY-FORCED COMBUSTION CHAMBER FOR
HEAVY AND MEDIUM LIQUID FUELS IN A GAS
TURBINE INSTALLATION (Vysokoforstvannaya
Kamera Sgoraniya GTU dlya Srednikh i Tyazhelykh
Zhidkikh Toplivo). 24 Feb 60 [16]p. Trafford Park
trans. 2601; M 1629.
Order from LC or SLA ml\$2.40, ph\$3.30 60-19939

Trans. of Teploenergetika (USSR) 1959 [v. 6] no. 2,
p. 33-39.

In the combustion chamber with a conical register and
a telescopic flame tube it is possible to burn different
types of solar oils, diesel fuels and mazut of type
F-12 when it is heated to 100°C. The fuel combustion
process was completed in the first section of the com-
bustion chamber ($l/d = 0.8$). The heat release values
for all the fuels burnt were 5×10^6 to 18×10^6
kcal/m³·h·atm and the specific heat release values
(Machinery--Engines, TT, v. 5, no. 5) (over)

60-19939

1. Gas turbines--Design
2. Combustion chambers--
Design

- I. Polyatskin, M. A.
- II. Svyatskiy, Z. M.
- III. AEI TP/T-2601
- IV. DSIR LLU M.1629
- V. Associated Electrical
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Office of Technical Services

An Investigation Into the Critical Velocity of
Steam At Which the Moisture Film Breaks Away
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1959, pp 50-53.

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Behaviour of Hydroxide and Calcium Chloride in the
Circuit of a Once-Through Boiler, by
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NLL Ref: 9022.09 1963 (3092) (Loan)

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The Formation of Iron Oxide Scale in Multiple-
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DSIR LIJ NTB 1343

(12a. 6a.)

Sci - Engr

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Effect of the Length of a Heated Pipe Section on the
Magnitude of the Critical Thermal Flux During the
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Styrikovich, L. Ye. Faktorovich, 9 pp.

RUSSIAN, per, Toploenergetika, Vol VI, No 2, 1959,
pp 83-88.

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RJ-3310

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Sobolev [S.]P. [Shneydman, A. Ye.] and others.
DEVELOPMENT OF THE LAST STAGE BLADING
FOR A 150 Mw TURBINE [Opyt Sozdaniya Lopatki
Posledney Stupeni dlya Turbin Moshchnost'yu 150 Mvd,
[1960] 12p. M 1962.
Order from LC or SLA ml\$2.40, pl:\$3.30 61-13300

- i. Turbine blades--
Development
- I. Sobolev, S. P.
- II. Shneydman, A. Ye.
- III. DSIR LLU M. 1912

Trans. of Tojloenergetika (USSR) 1959 [v. 6, no. 3]
p. 26-29.

147,089

The Kharkov turbine works has created a last stage
blade of record size using stress-relieved normal
chrome steel 1Kh13. Production of the last stage blade
caused no great technological difficulties and was ac-
commodated on normal longitudinal cutting machines
fitted with special devices. Experience gained showed
that there is a real possibility of creating still larger
last stage blading which will be reliable in operation.
(Author)

NA RES: 9022 03 1963 (3:74) (LOAN)
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Thermo-Physical Properties of Molten Metals,
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Molchanov, Ye. I.
TEMPERATURE DISTRIBUTION IN A GAS TUR-
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Rotore Gazovoy Turbiny) tr. by D. R. H. Phillips.
9 Mar 60, 5p. (Includes foreign text) Trafford Park
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Order from LC or SLA ml\$1.80, ph\$1.80 61-13020

Trans. of Teploenergetika (USSR) 1959 [v. 6] no. 3,
p. 30-31.

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1. Gas turbine rotors--
Temperature
- I. Molchanov, Ye. I.
- II. AEI TP/T-2649
- III. DSIR LLU M. 1675
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(Gr. Brit.)

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(Machinery--Engines, TT. v. 5, no. 5)

A New Highly Efficient Compressor Stage With
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Effect of Pressure Pulsations in a Gas
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Designing Basic Equipment for Electric Power
Stations Operated at Initial Steam Parameters
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The Problem of Operating More Economically the Existing Industrial Power Stations, by A. F. Afanas'yev, Yu. L. Kertselli, 5 pp.

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The BFK Wetness Meter, by I. I.
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Determination Experimentale des Volumes Specifiques
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Investigation of the Local Boiling of Subcooled
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pp 72-79.

DSIR LLJ RTS 1526

Sci - Engr

Sep 60

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Construction of Thermal Electric Power Stations
in 1959-1965, by I. T. Kovikov,

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Trans, Comm, & Elec Power
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Some Fundamental Problems of Development of
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JPRS-2226

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Aerodynamic Resistance of Compact Checkered
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Legki,
RUSSIAN, per, Teplotoenergetika, 1962,
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ARSEN'EV Yu. D., AVERIN E. K.

Approximate determination of the optimum cycle in atomic power plants featuring two closed cycles

Angenäherte Bestimmung des optimalen Zyklus von Atomkraftwerken mit zwei Kreisläufe :

Teploenergetika, No. 5, 29-33 (1959) - German

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The Problem of the Determination of the Resistance
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Selection of the Overlap in Turbine Stages,
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Heat Exchange at Bubble Boiling of Liquid, by
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**AEC-UKAEA/Risley*

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61-13089

Dumov, V. I.
 DESIGNING CENTRIFUGAL PUMPS WITH BOOST
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 ANCE (Raschet Tsentrobezhnykh Stupeny Nasonov s
 Predvkluchennymi Osvyymi Kolesami, Obladayush-
 chimi Vysokimi Antikavitatsionnymi Svoystvami).
 [1960] 10p. 8 refs. (5 figs. omitted) M1757.
 Order from LC or SLA ml\$1.80, ph\$1.80 61-13089

Trans. of Teploenergetika (USSR) 1959 [v. 6] no. 6,
 p. 35-39.

A method is put forward for designing centrifugal
 pumps fitted with additional axial impellers with
 values of C_{crit} between 3000 and 4000; the method is
 based on the use of test data and the similarity of the
 determining parameters. A nomogram and recom-
 mendations are given for choosing the basic construc-
 tional relationships and dimensions of such stages.
 (Author)

(Machinery--Machine Parts, TT, v. 5, no. 5)

1. Centrifugal pumps--
Design
2. Centrifugal pumps--
Hydrodynamic
characteristics
3. Cavitation--Countermeasures
 - I. Dumov, V. I.
 - II. DSIR LLU M. 1757

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Heat Transfer and Resistance to Flow in Tubes for
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RUSSIAN, per, Teploenergetika, No 6, 1959,
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~~SECRET~~
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Exp Research Ltd
London as TA-59/6.67
per AEC list 50

Automatic Control of Once-Through Boilers,
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