BARTOSH, Ye.T., kand.tekhn.nauk

Pickup characteristics of the gas turbine engines of locomotives with mechanical transmission systems. Trudy TSNII MPS no.241:20-35 '62. (MIRA 15:12)

(Gas turbines) (Locomotives)

BARTOSH, Ye.T., kand.tekhn.nauk; SYUZYUMOVA, Ye.M.

Analysis of principal networks and thermodynamic characteristics of the engines of gas turbine locomotives with free-piston gas generators. Trudy TSNII MPS no.241:58-82 '62. (MIRA 15:12)
(Locomotives) (Gas turbines)

BARTOSH, Ye.T., kand.tekhn.nauk

Tractional characteristics of a turbine with counterrotating rotors. Trudy TSNII MPS no.241:36-50 '62. (MIRA 15:12)
(Gas turbines) (Locomotives)

BARTOSH, Ye.T., kand.tekhn.nauk

Construction of approximate characteristics of an axial compressor. Trudy TSNII MPS no.241:112-118 '62. (MIRA 15:12)
(Compressors)

BARTOSH, Ye.T., kand.tekhn.nauk

Selecting the design parameters of traction turbines for gas-turbine locomotives. Vest. TSNII MPS 22 no.2:9-13 '63. (MIRA 16:4)
(Gas-turbine locomotives—Design and construction)

BARTOSH, Ye.T., kand.tekhn.nauk; KOLODYAZHNYY, N.V., kand.tekhn.nauk

Prospects for the expansion of gas-turbine traction. Zhel.dor.transp. 45 no.2:23-28 F '63. (MIRA 16:2)
(Gas-turbine locomotives)

BARTOSH, Yevgeniy Tarasovich, kand. tekhn. nauk; KISELEVA, N.P., inzh., red.; VERINA, G.P., tekhn. red.

[Gas-turbine locomotives] Gazoturbovozy. Moskva, Transzheldorizdat, 1963. 94 p. (MIRA 16:4)
(Gas-turbine locomotives)

BARTOSH, Ye.L., doktor tekhn. nauk

Determining the characteristics of double-shaft gas-turbine engines. Vest. TSNIIMPS 24 no.5:19-22 '65. (MIRA 18:9)

L 26125-65 EWT(d)/EWT(m)/EWP(t)/T-2/EPR/EWA(c)

ACCESSION NR: AT4049523 S/2917/64/000/282/0065/0075

18
18
B+1

AUTHOR: Bartosh, Ye. T. (Candidate of technical sciences)

TITLE: Performance curves of radial centripetal turbines

SOURCE: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta. Trudy, no. 282, 1964. Rezul'taty issledovaniy gazoturbovoza GT-01 i lokomotivnykh gazoturbinnykh dvigateley (Result's of research on the gas turbine locomotive GT-01 and locomotive gas turbine engines), 65-75

TOPIC TAGS: gas turbine, radial turbine, radio centripetal turbine, turbine performance curve, locomotive turbine

* [PROBABLE ERROR]

ABSTRACT: Lately, radial centripetal turbines have been introduced in different branches of engineering, due to the advantages of radial stages in comparison with axial flow turbines. Radial turbines with straight radial vanes are simple and of low cost. The heat drop is 10-40% higher at the rotor rim of a radial stage in comparison with an axial stage at similar peripheral speed, while the speed may be increased by 30-40%, resulting in higher power. Loss of power is higher in the centripetal stages than in axial stages, while the losses at the nozzles and leakage are lower. Radial turbines are mainly single-stage. On the basis of the general theory of turbines, an expression is given for the

Card 1/2

L 26125-65

ACCESSION NR: AT4049523

efficiency of a radial centripetal turbine. The expression shows that efficiency de[illegible] on the relative peripheral speed at the rotor rim. The maximum peripheral spee[illegible] esponds to the energy transformed into mechanical work by compound centrifugal [illegible]. To obtain high torque values, both performance curve branches must be used, with axial flow discharge from the impeller at calculated speed. At present, there are no test data available on variation of reaction and losses in the nozzles of centripetal turbines for different speeds. The relative flow coefficients for radial stages are calculated on the same basis as for axial ones. The analysis indicates that in radial stages, as in axial ones, nozzle adjusting by a hyperbolic curve is best done at the same time the turbine is boosted, ensuring an increase in the heat drop. A radial centripetal turbine has several positive features, ensuring a better future for gas turbine engines of medium and low power for locomotives. Orig. art. has: 5 figures and 21 equations.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta, Moscow (All-Union Scientific Research Institute of Railroad Transportation)

SUBMITTED: 00 ENCL: 00 SUB CODE: PR

NO REF SOV: 013 OTHER: 000

Card 2/2

L 26127-65 EWT(d)/EWT(m)/EWP(t)/T-2/EPR/EWA(c)

ACCESSION NR: AT4049524 S/2917/64/000/[illegible]/0076/0083

18
10
871

AUTHOR: Bartosh, Ye. T. (Candidate of technical sciences)

TITLE: Effect of system volume on pick-up of a twin-shaft gas turbine engine

SOURCE: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta. Trudy, no. 281, 1964. Rezul'taty issledovaniy gazoturbovoza GT-01 i lokomotivnykh gazoturbinnykh dvigateley (Results of research on the gas turbine locomotive G1-01 and locomotive gas turbine engines), 76-83

TOPIC TAGS: gas turbine, gas turbine pickup, gas turbine volume, twin shaft turbine, locomotive gas turbine

ABSTRACT: The pick-up of gas turbine engines is usually investigated on the assumption that passage of the system from one condition to a different one proceeds with the main parameters changing instantly into the values for the new condition of the system. In other words, the gas and air systems of the engine are considered without inertia, this being true for aviation and locomotive engines of the simple direct-flow type. However, if there is a regenerator or pre-cooler, disregarding inertia may lead to significant errors in relation to pick-up of the engine. The present paper deals with the effect of the volume of the regenerator on the pick-up of a twin-shaft engine as an example. Analysis of the

Card 1/2

L 26127-65

ACCESSION NR: AT4049524

derived equations proves that in twin-shaft locomotive engines, regenerators of large volume may impair the pick-up of the engine. Thus, introduction of regeneration into locomotive gas turbine engines with fixed pick-up may produce increased idling speed of the turbo-compressor and increase of fuel consumption at this speed. This should be taken into account when considering the problem of efficiency and expediency of regeneration in gas turbine locomotives. Orig. art. has: 2 figures and 40 equations.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta, Moscow (All-Union Scientific Research Institute of Railroad Transportation)

SUBMITTED: 00 ENCL: 00 SUB CODE: PR

NO REF SOV: 003 OTHER: 000

Card 4/2

L 26128-65 EWT(m)

ACCESSION NR: AT4049525 S/2917/64/000/282/0084/0095

AUTHOR: Bartosh, Yo. T. (Candidate of technical sciences)

TITLE: Effect of performance features of locomotive gas turbines on the transient processes of train motion

SOURCE: Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta. Trudy, no. 282, 1964. Rezul'taty issledovaniy gazoturbovoza GT-01 i lokomotivnykh gazoturbinnykh dvigateley (Results of research on the gas turbine locomotive GT-01 and locomotive gas turbine engines), 84-95

TOPIC TAGS: gas turbine, locomotive gas turbine, turbine, performance, railroad locomotive, train motion

ABSTRACT: The principal performance features of the gas turbine, distinguishing it from other locomotive engines, are the significant deviation of performance curves from hyperbolic ones and insufficient pick-up of the engine, requiring time for passage of the turbo-compressor from idling speed to full power. On railroads, after passing to idling speed (at signals), the locomotive must then change to full power. The differential equation for train motion shows that the acceleration and speed depend on the specific tractive force, specific train resistance and total resistance caused by the grade and

Card 1/2

L 26128-65

ACCESSION NR: AT4049525

horizontal curves. Two solutions are given: for hyperbolic and linear performance curves. Considering these solutions, it was found that the decisive effect on speed for transient and stable train motion is the deviation of the performance curve from a hyperbola. The pick-up of the engine becomes highest during turbocompressor acceleration for over 0.5 minutes. Gas turbine locomotives with direct drive should therefore be used for high speed passenger and freight trains. The equations show that for medium and heavy grades, the lowering of speed as the grade increases is more marked with a linear performance curve than with a hyperbolic curve. Analysis of performance features of locomotive power units with gas turbine engines shows the necessity of further investigation of the working process of gas turbines and the dependency of operation of other assemblies of the power unit for improving the tractive force of the gas turbine engine. In particular, the primary problems are maximum approximation of the external performance curves of gas turbine locomotives with direct drive to a hyperbolic curve, as well as improvement of pick-up of multi-shaft gas turbine engines. Orig. art. has: 4 figures and 30 equations.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta, Moscow (All-Union Scientific Research Institute of Railroad Transportation)

SUBMITTED: 00 ENCL: 00 SUB CODE: PR

NO REF SOV: 003 OTHER: 000

Card 2/2

GLAGOLEV, Nikolay Matveyevich; KURITS, Aleksandr Ariyevich; VODOLAZHCHENKO, Vitaliy Vasil'yevich; BARTOSH, Yevgeniy Tarasovich; SAZONOV, A.G., red.

[Internal combustion engines and gas turbines for diesel locomotives] Teplovoznye dvigateli vnutrennego sgoraniia i gazovye turbiny. Izd.2., perer. Moskva, Transport, 1965. 400 p. (MIRA 18:6)

[redacted], Ye.P.; VOLKOV, N.F.; ROMANOV, B.A.

Substantiating the principle of the existence of entropy in thermodynamics. Inzh.-fiz. zhur. 9 no.3:412-417 S '65.
(MIRA 18:9)

L 0715?-67 EWP(i) FDN/WW

ACC NR: AR6014706 SOURCE CODE: UR/0285/65/000/011/0008/0008

AUTHOR: Bartosh, Ye. T.

TITLE: Determination of the characteristics of dual-shaft gas turbine engines

SOURCE: Ref. zh. Trubostroyeniye, Abs. 11.49.66

REF SOURCE: Vestn. Vses. n.-i. in-ta zh.-d. transp., no. 5, 1965, 19-22

TOPIC TAGS: gas turbine, gas turbine performance, turbine

ABSTRACT: A graphical-analytical method for determining the basic characteristics of dual-shaft locomotive GTD's is presented. The method can substantially simplify the problem of determining the energy parameters of multishaft engines preceding their exact calculations based on the experimental aerodynamic characteristics of the turbine components. [Translation of abstract]

SUB CODE: 10

Card 1/1 egh

UDC: 621.438.001.24

ACC NR: AP7005401 (A) SOURCE CODE: UR/0232/66/000/011/0034/0040

AUTHOR: Bartosh, Ye. T. (Doctor of technical sciences)

ORG: none

TITLE: Present state and prospects for the use of gas turbine locomotives in railroad service

SOURCE: Zheleznodorozhnyy transport, no. 11, 1966, 34-40

TOPIC TAGS: gas turbine engine, railroad transportation, locomotive engineering

ABSTRACT: The present state of gas turbine propulsion for railroad locomotives in the USSR is reviewed and future prospects are discussed. In the USSR the development of gas-turbine installations for locomotives was started in 1955. The first gas turbine locomotive had an efficiency of 10 to 12%, i. e., it consumed 2.0 to 2.2 times more fuel than the diesel locomotive. However, the fuel was of a lower grade containing 2.0 to 3.0% sulfur and its projected cost was 1.5 to 2.0 times less than that of diesel fuel. The advantages of developing gas turbine propulsion for future high-speed railway transportation are discussed relative to the following schemes: a single-shaft gas turbine drive with dc generator and motor; two-shaft gas turbine drive with direct mechanical power transmission; a three-shaft gas turbine drive with ac synchronous generator and asynchronous electric motor drive; and a combination gas turbine drive

UDC: 625.282-843.8

Card 1/2

ACC NR: AP7005401

with a free-piston gas generator. A note by the editor states that considerable sums of money have been expended in recent years at the Kolomna and Lugansk plants on the development of experimental gas turbine locomotives. However, the state plans have not been fulfilled and work at the Kolomna plant in this direction is being terminated. Orig. art. has: 8 figures.

SUB CODE: 21,13/ SUBM DATE: none

Card 2/2

BARTOSHEK, V. [Bartosek, V.]

Transient states of a reactor during the recharging of fuel elements. Atom.energ. 16 no. 4:315-324 Ap '64. (MIRA 17:5)

1. Institut yadernykh issledovaniy Chekhoslovatskoy Akademii nauk, Praga-Rzhezh.

ACCESSION NR: AP4029693 S/0089/64/016/004/0315/0324

AUTHOR: Bartoshek, V.

TITLE: Transition states of a reactor during reloading

SOURCE: Atomnaya energiya, v. 16, no. 4, 1964, 315-324

TOPIC TAGS: fuel element, radiation stability, equilibrium state, neutron flux, neutron distribution, neutron multiplication, equilibrium transition, mixed transition

ABSTRACT: The change of a reactor from an initial to an equilibrium state, as well as the most important physical indicators of various types of this transition are discussed, based on the assumption that the reloading of one fuel element produces an insignificant reactivity jump in the entire reactor and that the spatial distribution of the neutron flux is constant and does not depend on the burn-up fraction of the fuel element at a given point. The neutron multiplication factors in the transition state,

Card 1/2

ACCESSION NR: AP4029693

the difference between the old and fresh fuel elements, and the equilibrium transition whereby the fuel elements are reloaded at a constant rate equal to an equilibrium rate are discussed in particular. The negative aspect of the equilibrium reactor transition is that the burn-up of the first fuel charge is half that of an equilibrium burn-up. This is because the fuel elements are extracted from the reactor as soon as it is started. Better efficiency can be achieved by delaying the fuel elements in the reactor until they are irradiated to some degree, and then extracting them at a constant rate which would prevent the reactor reactivity from dropping below the required level. The other schemes include: the constant reactivity transition, the mixed transition, and a transition with a second degree reactivity dependence. "The author extends his gratitu de to B. L. Ioffe for his discussion of this project." Orig. art. has: 5 figures and 55 formulas.

ASSOCIATION: Institut yadernykh issledovaniy ChSAN, Prague-Rzhezh (Institute of Nuclear Research, Czechoslovak Academy of Sciences)

SUBMITTED: 05Jun63 ATD PRESS: 3050 ENCL: 00

SUB CODE: NP NO REF SOV: 001 OTHER: 001

Card 2/2

L 19531-65 EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(t)/EPA(bb)-2/EWP(b) Pr-4/Pe-4/Pu-4
SSD/AFWL/IJP(c) JE/WW/JW/JG/DM

ACCESSION NR: AP4049539 S/0089/64/017/005/0380/0384

AUTHORS: Bartoshek, V.; Lelek, V.

TITLE: Burnup of natural uranium moving axially in a reactor

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 380-384

TOPIC TAGS: reactor buckling, reactor fuel, reactor operation, nuclear fuel burnup

ABSTRACT: The effect of continuous axial motion of the fuel element on the neutron flux distribution and on the burnup of natural uranium in a heavy-water reactor is examined. A simplified model in which the variables of the buckling equation are assumed to be separable is used, and allowance is made for the dependence of the neutron multiplication coefficient on the burnup of uranium. Calculations for 10 reactor variants are compared. It is shown that motion of the uranium in a single direction increases the burnup

Card 1/2

L 19831-65
ACCESSION NR: AP4049539

by approximately 20% compared with the regime in which the fuel elements are continuously replaced, and improves the thermodynamic operating conditions of the fuel elements. A regime in which half the fuel moves in opposition to the other half increases uranium burnup by 40% without changing noticeably the conditions of heat transfer from the fuel elements. Orig. art. has: 1 figure, 26 formulas, and 1 table.

ASSOCIATION: None

SUBMITTED: 13Dec63 ENCL: 00

SUB CODE: NP NR REF SOV: 001 OTHER: 001

Card 2/2

BARTOSHEVICH, A., inzh.

Economically planned large-panel apartment houses. Na stroi. Mosk. 1 no.6:3-6 Je '58. (MIRA 11:9)
(Moscow--Apartment houses)

BEKER, M. Ye. [Bekers, M.]; BARTOSHEVICH, G.I.; VIYESTUR, U.E. [Viesturs, U.]; LAZHE, Ya.Ya. [Laze,J.]

Growing and drying of fodder yeast in the Milgravis Distillery. Ferm. i spirt. prom. 30 no.7:29-33 '64 (MIRA 18:2)

1. Institut mikrobiologii AN Latviyskoy SSR (for Beker). 2. Milgravskiy spirtovoy zavod (for Bartoshevich). 3. Sovet narodnogo khozyaystva Latviyskoy SSR (for Viyestur, Lazhe).

BARTOSHEVICH, I.

USSR/Miscellaneous - Radio amateurs

Card : 1/1 Pub. 89 - 8/24

Authors : Bartoshevich, I. and Rossa, R.

Title : In countries of the Peoples' Democracies

Periodical : Radio 6, 14 - 15, June 1954

Abstract : Under the above title are given three small articles referring to radio-amateur activities in Poland, Bulgaria, and Hungary. Illustrations.

Institution : ....

Submitted : ....

BARTOSHEVICH, M.A.

Plane-parallel fabrics of hypersurfaces. Dokl. AN SSSR 124 no.5: 970-972 F '59. (MIRA 12:3)

1.Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova. Predstavleno akademikom P.S. Aleksandrovym.
(Surfaces)

16(1)
AUTHOR: Bartoshevich, M.A. SOV/20-124-5-2/62

TITLE: Plane Parallel Fabrics of Hypersurfaces (Plosko-parallel'nyye tkani giperpoverkhnostey)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 5, pp 970-972 (USSR)

ABSTRACT: The author obtains three theorems with the aid of an invariant method of investigation for embedded manifolds developed by G.F. Laptev [Ref 3,4] and A.M. Vasil'yev [Ref 5] ; they contain necessary and sufficient conditions that a p-fabric in the n-dimensional space be equivalent to a plane parallel p-fabric (see Blaschke [Ref 1]). In theorem 1 it is $p = n + 1$, $n > 2$, in theorem 2 p is arbitrary, $n > 2$, in theorem 3 p is arbitrary, $n = 2$. The author thanks Professor G.F. Laptev for his assistance. - There are 6 references, 4 of which are Soviet, 1 German, and 1 French.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova (Moscow State University imeni M.V. Lomonosov)

PRESENTED: October 14, 1958, by P.S. Aleksandrov, Academician
SUBMITTED: October 9, 1958

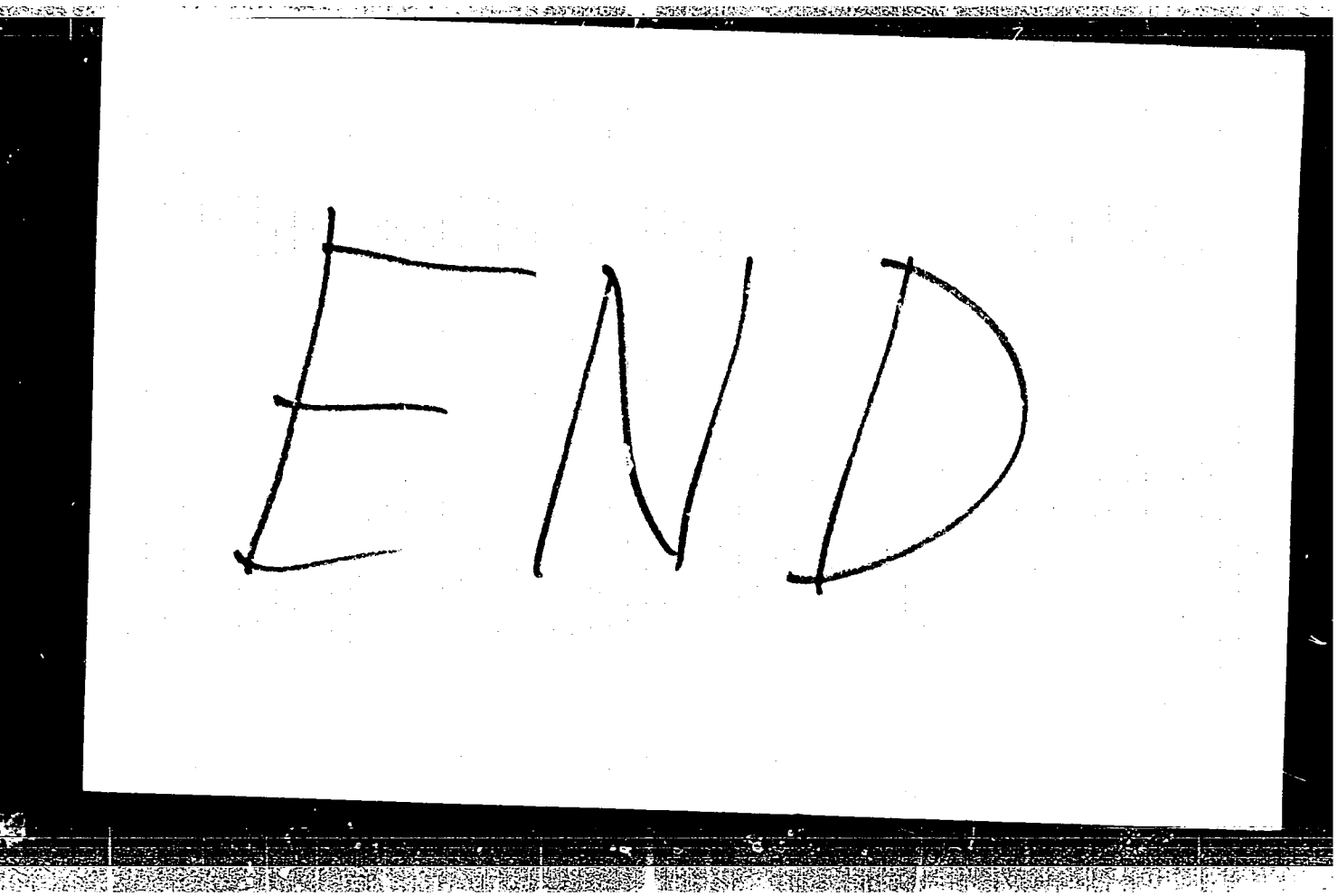
Card 1/1

REEL #37

BARMIN, S.F.

to

BARTOSHEVICH, M.A.



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