23023
S/148/60/000/012/012/020
A161/A133

18.7500 1145, 1418, 1413

AUTHOR: Malinochka, Ya. N.

TITLE: The effect of dendritic silicon liquation on the phase and structural transformations in spring steel

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 12, 1960, 106 - 110

TEXT: Considerable Si-liquation had been found formerly in steel with a chemical composition close to the silicon spring steel grades (Ref. 1: Malinochka. "Stal'", 1958, no. 12). New data have been obtained in new experiments with cast and rolled 55C2 (55S2) and 60C2 (60S2) steel:

Steel designation in experiments / Обозначение сталей	C	Si	Mn	S	P	
Cast steel / Литые стали						
16	0,69	0,85	0,08	0,013	0,005	Rod 20 mm in diam.
Бандажная / Tire steel	0,57	0,14	0,71	0,015	0,019	Rod 40 mm in diam.
Rolled steel / Прокатанные стали						
Б 8	0,51	1,84	0,78	0,036	0,016	100 x 13 mm strip
Д 9	0,57	1,78	0,78	0,033	0,017	
И 1	0,62	1,74	0,81	0,024	0,029	130 x 10 mm strip

Card 1/4

The effect of dendritic silicon liquation on...

In the "16" steel same transformations were observed as in the previous experiments (Ref. 1). Austenization started at 760°C in the axial zone of the dendrite branches, and areas between branches gradually lost cementite and became ferritic. No dendrite structure was found in the 40 mm wheel-tyre steel specimens at partial austenization. Sodium picrate proved the best reaction agent to reveal the Si-liquation. In tyre steel (0.14% Si) even sodium picrate did not reveal dendrites. This indicates that dendritic Si-liquation is not clearly expressed at a low Si content, and the segregation of P and Mn cannot be revealed by sodium picrate, nor is this the case by partial austenizations. In rolled steel (B, D and I) austenization started at 760°C, beginning in the middle of clearly defined bands in the banded ferrite-pearlite structure, i.e. in spots of the highest micro-segregation. Austenite did not form at all on the surface at the start of soaking, then appeared in fine separate crystals. With a rise in temperature the quantity of austenite increased both in the middle and at the surface of bands; the middle eliminated cementite faster, and the areas free of cementite turned into ferrite. Comparing the data with the results obtained with cast steel, the author concludes that the formation of a banded ferrite-austenite struc-

Card 2/4

The effect of dendritic silicon liquati... ....

ture in the austenization process in rolled steel (as well as of banded ferrite-pearlite in subcritical annealing) is the result of dendritic Si-liquation. Longer holding at the hardening temperature, and a higher hardening temperature, obviously prevent the ferritic band formation, i.e. make the structure of tempered steel more homogeneous. Si-liquation obviously causes both the primary and the secondary ferrite bands. It is commonly believed that ferrite bands occur in steel with a C-content below 0.5%, but actually it can be produced by heat treatment in steel with as much as 0.62% C. Manganese and phosphorus in studied contents had no marked effect. There are 4 figures and 3 Soviet-bloc references.

ASSOCIATION: Institut chernoy metallurgii AN USSR (Institute of Ferrous Metallurgy AS UkrSSR)

SUBMITTED: November 18, 1959

Card 3/4

MALINOCHKA, Ya. N. (Dnepropetrovsk)

Distribution of components between the solid and liquid phases in alloys; about errors in B. A. Movchan's works. Izv. AN. SSSR. Otd. tekh. nauk. Met. i topl. no.2:141-143 Mr-Ap '61. (MIRA 14:4)
(Alloys—Metallography)
(Phase rule and equilibrium)

T 2 92

24190
S/129/61/000/007/004/010
E071/E135

AUTHORS: Malinochka [illegible] Osipova N.G. and Kovalchuk S.Z.

TITLE: A new structural component in cast iron alloys

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov No.7 pp 15-[illegible] (+3 plates)

TEXT: A specific structural component named 'honeycomb pearlite', was described in a previous publication of the present authors (Ref.1: DAN Ukr.SSR No.1: 1956). In the present work further investigation of the mechanism of formation of this component and its change on heat treatment are described. The chemical composition of the investigated alloys was: C, 1.35-3.33%, Si, 0.52-4.91%, Mn traces-0.16%, S 0.021-0.041%, and P, 0.002-0.006%. In addition industrial malleable cast iron and silicon steel with 1.3% C and 1.13% Si were used. The alloys were smelted in a 40kg induction furnace and cast in metal and sand moulds of various shape so that a wide range of cooling velocities during crystallization and structure cooling was obtained. After the usual etching with 3-5% alcoholic picric acid many large plates of hypereutectoidal carbide and on the boundaries of dendrites, a

Card 1/5

24190
S/129/61/000/007/004/016
E071/E135

A new structural component in ...

network of monolithic, apparently eutectoidal carbide were observed in chilled castings of 1.75% ... 4.5% and also in white component sectors. The remaining structure is the usual plate-like pearlite. On etching with picrate the hypereutectoidal carbide rapidly becomes black, whereupon the relief of crystals becomes well visible indicating its non-uniformity. On heat etching of polished sections the non-uniformity of hypereutectoidal carbide appears more clearly: some of its sections become dark, the others remain light. The dark sections have the appearance of inclusions, while the light, sections of a matrix. This non-uniform carbide-like structural component ... in hypereutectoidal silicon steels and cast irons is referred to as non-uniform carbide or "carbide". A detailed description illustrated by microphotographs of the appearance and structure of this component is given. The honeycomb structure of a "carbide" plate can be seen if it is cut at an angle close to 90°. It appears that within the limits of a single "carbide" plate the centers of the dark and light components are continuously joined between themselves, i.e. they present a strongly branched formation. The degree of dispersion of the structure of the non-uniform carbide increases with increasing

Card 2/3

A new structural component in . . S/129/61/000/007/004/016
E071/E135

cooling velocity of the casting. On short heating below the A_1 temperature, the light component decomposes into ferrite and dark coloured carbide, sectors of dark carbide somewhat increase and in places where the light component was present, ferrite is formed. On austenisation, light and dark components of the non-uniform carbide at first dissolve at similar rates, but with increasing retention above A_1, the light component disappears while the dark is preserved in the form of long plates or in the form of lines of small crystallites. On heating specimens containing 1.35-1.55% C and 3.1% Si to 700-750 °C the light component of the non-uniform carbide disappears in 20-60 minutes. Its crystals are transformed into a ferrite-carbide component which is called "honeycomb pearlite" or carbide pearlite. With increasing temperature the rate of decomposition of light zones of non-uniform carbide increases and at 800-820 °C it is completed in 10-15 min. In steels containing about 0.5% Si the non-uniform carbide is formed only in the segregation sectors with increased silicon content. In low carbon alloys, the stability of the light component is very low. In castings made in sand moulds, this component decomposes during cooling and under the microscope instead of non-uniform

A new structural component in . . .

carbide, colonies of carbide pearlite are observed. The amount of carbide phase in the pearlite carbon is higher than in the usual pearlite. The experimental data indicate that the light component has low carbon and high silicon content. Its stability apparently depends on the amount of silicon in steel. The mechanism of formation of hypereutectoidal non-uniform carbide appears to be as follows. On supersaturation of silicon austenite of hyper-eutectoidal composition with carbon the usual low silicon cementite begins to separate. The adjoining austenite becomes poorer in carbon and richer in silicon. If the concentration of silicon at the surface of the growing cementite crystal becomes sufficiently high then a crystal (or crystals) of a carbide-like high silicon phase begins to grow in this place. This can be distinguished from cementite on thermal etching of a polished section. If the cementite crystal has the plate-like form then the growing crystal of the carbide-like phase also obtains a plate-like form. On the growing of this plate, the adjoining austenite becomes poorer in silicon and probably richer in carbon. This causes the formation of a new cementite plate, etc. It appears that the two-phase "carbide" or carbide pearlite formed from it, is important in the

A new structural component in ... S/129/61/000/007/004/016
E071/E135

graphitisation of Fe-C-Si alloys. On heating of hypereutectoidal steel above or below A_1, graphite nuclei are formed in the colonies of carbide pearlite As a result, variously orientated lines of graphite inclusions are observed in the graphitised steel. It can be supposed that a large part of the graphite inclusions appearing in the axial sectors of dendritic branches is related to the two-phase "carbide" and carbide-pearlite.
There are 6 figures, 1 table and 11 references: 7 Soviet and 4 English. The English language references read as follows:
Ref.5: A. Kříž F Pobžil Journal Iron and Steel Institute, V.126, 1932.
Ref.6: J.E. Hilliard, W S. Owen Journal Iron and Steel Institute, V.172 No.3. 1952.
Ref.7: D. Marles. Journal Iron and Steel Institute, V.158. No.4, 1948.
Ref.9: W.S. Owen, Journal Iron and Steel Institute, V.167, No.2, 1951.
ASSOCIATION: Institut chernoy metallurgii AN USSR (Iron and Steel Institute, AS Ukr.SSR)

Card 5/5

MALINOCHKA, Ya.N., kand.tekhn.nauk

Characteristics of structural changes in steel and cast iron depending on the microsegreation of silicon. Trudy Inst.chem. met.AN URSR no.14:100-117 '61. (MIRA 14:10)
(Steel--Metallography) (Cast iron--Metallography)

MALINOCHKA, Ya.N.

Nature of the microliquation of silicon in steel and cast iron.
Izv. vys. ucheb. zav.; chern. met. 5 no.7:165-171 '62.
(MIRA 15:8)

1. Institut chernoy metallurgii AN USSR.
(Steel--Inclusions) (Phase rule and equilibrium)

MALINOCHKA, Ya.N.

Pearlitic border in ferritic cast iron. Lit.proizv. no.9:34-37 S '62. (MIRA 15:11)
(Cast iron--Metallography)

MALINOCHKA, Ya.N., kand.tekhn.nauk

Pearlitic edge in ferritic cast iron. Trudy Inst. chern. met. AN URSR 18:97-108 '62. (MIRA 15:9)
(Cast iron--Metallography)

MALINOCHKA, Ya.N., kand.tekhn.nauk

Some characteristics of the macro and microstructure of iron castings. Trudy Inst. chern. met. AN URSR 18:109-120 '62.
(MIRA 15:9)
(Cast iron—Metallography)

MALINOCHKA, Ya.N.; OSADA, N.G.

Exchange of experience. Zav.lab. 28 no.3:315 '62. (MIRA 15:4)

1. Institut chernoy metallurgii AN USSR.
(Steel--Metallography) (Silicon)

MALINOCHKA, Ya.N.; MASLENKOV, S.B.; YEGORSHINA, T.V.

Investigating the microsegregation of silicon in cast iron with the help of an electron probe. Lit. proizv. no.1:22-25 Ja '63. (MIRA 16:3)

(Cast iron—Metallography)

MALINOCHKA, Ya.N. (Dnepropetrovsk); YEGORSHINA, T.V. (Dnepropetrovsk)

Mutual effect of silicon and phosphorus on their microsegregation in steel and cast iron. Izv. AN SSSR. Otd. tekh. nauk. Met. i gor. delo no.1:138-141 Ja-F '63. (MIRA 16:3)

(Steel—Metallography) (Cast iron—Metallography)

MALINOCHKA, Ya.N. (Dnepropetrovsk)

Redistribution of carbon determined by the microliquation of silicon in steels and cast irons. Izv. AN SSSR Met. i gor. delo no.3:125-130 My-Je'64 (MIRA 17:7)

MALINOCHKA, Ya.N.; KOVAL'CHUK, G.Z.; Prinimal uchastiye MOISEYEV, B.P., inzh.

Effect of macro- and microheterogeneity of an ingot on the mechanical properties of spring steel. Stal' 23 [i.e. 24] no.4:362-364 Ap '64. (MIRA 17:8)

MALINOCHKA, Ya.N.; KOVAL'CHUK, G.Z.

Determining the size of austenite grains in silicon steel and cast iron. Zav.lab. 30 no.3:315-316 '64. (MIRA 17:4)

1. Institut chernoy metallurgii, Dnepropetrovsk.

L 37634-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/JW/JW/EM
ACC NR: AP6015036 (N) SOURCE CODE: UR/0125/66/000/004/0013/0017

AUTHORS: Malinochka, Ya. N.; Pavlova, S. D.; Slin'ko, L. A.

ORG: Dnepropetrovsk Institute of Iron Metallurgy (Dnepropetrovskiy institut chernoy metallurgii)

TITLE: Structure and properties of welded seams in low alloy steel pipes

SOURCE: Avtomaticheskaya svarka, no. 4, 1966, 13-17

TOPIC TAGS: weld evaluation, welding technology, metal welding, seam welding, metal property, alloy steel / 14KhGS alloy steel, 17GS alloy steel, 14GN alloy steel

ABSTRACT: The structure and properties of welded joints were investigated before and after heat treatment to determine the reasons for cracking of welded joints in 1020-mm diameter steel pipes made of 14KhGS, 17GS, and 14GN steel. Photographs of the weld microstructures are presented for various conditions of heat treatment, and the strength properties of the base metal under various temperature conditions were determined. A considerable amount of martensite is formed in the seam, increasing its strength and hardness but decreasing its plasticity. Cracks are formed during expansion of the pipe under low temperature conditions, and these grow along interaxial dendrite portions of the weld. These cracks can be prevented by tempering of the welded seam at 450—500C. N. M. Yan and E. E. Novikov helped with the experimental work. Orig. art. has: 6 figures.

SUB CODE: 13/ SUBM DATE: 18Dec65/ ORIG REF: 003
UDC: 621.791.004.12:669.15-194

Card 1/1 vmb

MALINOCHKA, Ya.N.

Terminology and crystallization zones of ingots. Lit. proizv. no.2: 46-47 Ag '64. (MIRA 18:10)

MALINOFF, Christo; SCHENK, Jiri, inz., dr. (translator)

The metallurgical works "Kremnikovci", the largest project of the third five-year plan of the Bulgarian People's Republic. Rudy 10 no.7:221-225 Jl '62.

1. Redaktor casopisu Minno delo i metallurgia, Bulgaria (for Malinoff).

MALINOV, A.I.

Problems relative to underground gas storage in the Urals. Trudy SGPK no.1:278-286 '60. (MIRA 13:10)
(Ural Mountains--Gas, Natural--Storage)

MALINOV, A.I.

Novosel'skoye upland is a possible location of underground storage of gas in the central trans-Ural region. Trudy SGPK no.3:163-171 '62. (MIRA 15:10)
(Ural Mountain region—Gas, Natural—Storage)
(Prospecting)

MALINOV, A.I.

Mesozoic weathering crust of the Central Ural and the possibilities for the creation of underground gas reservoirs in them. Gaz. prom. 8 no.2:35-40 '63. (MIRA 17:8)

MALCHOV, E.; MOZHILOV, T.

"Standardization and payment of wages in the mineral-resource industry with reference to improvement of the ore quality."

RUDNO DELO, Sofiia, Bulgaria; Vol. 14, No. 1, Jan./Feb., 1959

Monthly list of EAST EUROPEAN ACCESSIONS INDEX (EAI), Library of Congress, Vol. 8, No. 8, August, 1959

Unclassified

MALINOV, Evg., inzh.

A meeting of high-speed workers in mining. Min delo 18 no.8:47-48 Ag '63.

MALINOV, Evf., inzh.

Selection of the system of vein processing. Min. delo 18 no.4: 8-12 Ap'63

1. U-nie "Tsvetna metalurgiia i rudidobiv".

MALINOV, Evg., inzh.

Possibilities for utilizing the method of sorting in the ores production. Min delo 16 no.12:8-11 '61.

1. Upravlenie na geolozhkite prouchvaniia i okhranata na zemnite nedra.

(Ores)

L 51293-65 EWT(1)/EWA(h) Pn-4/Pi-4/Peb

ACCESSION NR: AP5009072 UR/0108/65/020/003/0009/0015
621.372

AUTHOR: Malinov, I. A. (Active member)

TITLE: Theory of the ⊓-shaped hollow resonator

SOURCE: Radiotekhnika, v. 20, no. 3, 1965, 9-15

TOPIC TAGS: resonator, hollow resonator, pi shaped resonator

ABSTRACT: The natural frequency of a ⊓-shaped capacitive-gap resonator filled with a laminated complex-dielectric-constant substance is determined by considering the case of free damped oscillations; the principal oscillations are of E-mode. The relation between the natural frequency of free damped oscillations of the resonator and its resonance frequency of forced oscillations is determined. The possibility is demonstrated of absolute measurement of (high) dielectric constants and (high) conductivities (semiconductors) by placing the corresponding substances into a ⊓-resonator and measuring the Q-factors and frequencies. Orig. art. has: 2 figures and 32 formulas.

Card 1/2

L 51293-65
ACCESSION NR: AP5009072

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi (Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 16May63 ENCL: 00 SUB CODE: EC

NO REF SOV: 003 OTHER: 002

Card 2/2

MALINOV, I.A.

Theory of a π -type hollow resonator. Radiotekhnika 20 no.3:7-15 Mr '65. (MIRA 18:6)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi imeni Popova.

MALINOV, K.

Device for driving-in nails. Sel'stroi. 9 no.1:18 Ja-F '54.
(MIRA 13:2)
(Nails and spikes)

LISITSYN, A.Ye.; MALINKO, S.V.; KUMYANTSEV, G.S.

New finds of frolovite and pentlandite-bearing rocks. Dokl. AN SSSR 164 no.1:171-173 S '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya i Moskovskiy gosudarstvennyy universitet. Submitted May 17, 1965.

MALINOV, KH.

"Dimitrovo is a City of Miners and Metallurgists", P. 39, (MINYO DELO, Vol. 9, No. 8, Aug. 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No.1, Jan. 1955, Uncl.

MALIKOV, KHR

The Mining "Brigade" (Team, Crew) of ALI MURAIKOV KHODZHOV and its success.
Minno Delo (Mining) #12:56:Dec 54

VALTNOV, F.P.

664.[illegible]0 m Advancement in Driving of Preparator[illegible]alleri[illegible]s in [illegible]ne Mont[illegible]. Minno Delo (Mining), #5:92: Sept-Oct 55

MALTSOV, M.R.

Brief Information. Minsk Delo (Mining), #5:105: Sept-Oct 55

MALINOV, K. R.

New Books: "Ventilation of Mines" and "Water Drainage of Mines"
Minno Delo (Mining), #5:30?: Sept-Oct 55

MALINOV, KHR.

Mining Technics Exhibited at the Plovdiv Fair. Minno Delo (Mining), #5:11?: Sept-Oct 55

MALINOV, Khr.

Georgi Agrikol, a Famous German Scientist of the 16th Century. Minno Delo (Mining), #6:37: Nov-Dec 55

MALTSEV, Khr.

Success of Our Oil Prospecting Samplers. Mining Delo (Mining), #6:[illegible]: Nov-Dec 55

MALINOV, Kh.

Outstanding brigade in the Matitsa Mine. p. 104.
RUDNO DELO, Sofiya, Vol. 10, no. 1, Jan./Feb. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

MALINOV, KH.

Speedy brigade of Stoian Aleksandrov Sotrov, hero of socialist labor, in the Georgi Dimitrov Mine shaft. p. 106.

Vol. 10, No. 3, May/June, 1955.
MINNO DELO
Sofiya, Bulgaria.

Source; East European Accessions List, (EEAL) Library of Congress, Vol. 5, No. 1, January, 1956.

MALINOV, Kh.

Successes of our oil drillers. p. 29

MINNO DELO. Vol. 10, No. 6, Nov./Dec. 1955

Sofiya, Bulgaria

So. East European Accessions List Vol. 5, No. 9 September, 1956

MALINOV, Kh.

Novelty in mining technology, new mine combines. p. 93

MINNO DELO. Vol. 10, No. 6, Nov./Dec. 1955

Sofiya, Bulgaria

So. East European Accessions List Vol. 5, No. 9 September, 1956

MALINOV, KH.; DOBREV, T.

Domination of Anglo-American oil companies in the Near East and Middle East. p.54. TEZHKA PROMISHLENOST. (Ministerstvo na tezhkata promishlenost) Sofiia. Vol. 5, no. 1, 1956

SOURCE: East European Accessions List, (EEAL), Library of Congress, No. 12, Vol. 5, December 1956

MALINOV, KH.

MALINOV, Kh. Machine operators' brigade, frontranker of the Republic I Mine of the Georgi Dimitrov State Mining Enterprise. p. 97.
Soviet and Polish Scientific technical Conference on the Coal Industry. Fr. from the Russian. p. 100.
Development of black metallurgy in China. p. 105.
Development of metallurgy and the mining industry in India. p. 107.

Vol. 1[illegible], (i. e. 11) No. 4, July/Aug. 1956.
MINNO DELO
TECHNOLOGY
Sofiia, Bulgaria

So: East European Accession, Vol. 6, No. 3, March 1957

LAZAROV, S.; MALINOV, Kh.

Sliven miner. Mast. ugl. 7 no.11:29 N '58. (MIRA 11:12)
(Bulgaria--Coal mines and mining)

MALINOV, KH.

TECHNOLOGY

Periodicals: MINNO DELO, Vol 13, No. 5 Sept./Oct. 1958.

MALINOV, KH. Speedy construction of a vertical shaft with minimum use of machinery in the Rosen-Varli Brikel State Mine Enterprise. p. 57.

Monthly List of East European Accession (EEAI) LC Vol. 8, No. 4, April 1959, Unclass.

DRUGOV, A., MALINOV, I.

Saws

Zhuravskii saw for felling timber. Les. prom. no. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August, 1952 ~~1953~~. Unclassified.

DRUGOV, A. S.; MALINOV, L. M.

Woodworking Machinery

Fedorov's woodworking machine, Der. i lesekhim. prom 2 No. 3, 1953

Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

KOTENKO, A., glavny inzhener; MALIKOV, L.

More reinforced concrete from the same floor space. Stroi. mat., izdel. i konst. 1 no.10:25-28 O '55. (MLRA 9:1)

1.Moskovskiy zavod zhelezobetonnykh izdeliy No.5 (for Kotenko).
(Reinforced concrete)

MALINOV, L.

A useful book. ("Organizing lumber transportation on rafts." Rech. transp. 14 no.6:3 of cover Je '55. (MLRA 8:9)
(Lumber--Transportation) (Borisov, I.G.)

MALINOV, L.

Initiative of an electric lamp worker. Prof.-tekh.obr. 13 no.5: 7 My '56. (MLRA 9:8)
(Electric lamps)

MALINOV, L.M.

Ultrasonic processing of materials. Nauka i zhizn' 23 no.7:20 Jl '56. (MLRA 9:9)
(Ultrasonic waves--Industrial applications)

MALINOV, L.M.

"TSRP" unit. Nauka i zhizn' 23 no.11:51 N '56. (MLRA 9:11)
(Dust collectors)

AUTHOR: Malinov, L.M.

SOV/117-58-11-29/36

TITLE: A ~~Centrifugal Dust~~ and Smoke Eliminator (Tsentrobezhnyy pyle-tumano-otdelitel')

PERIODICAL: Mashinostroitel', 1958, Nr 11, pp 41 - 42 (USSR)

ABSTRACT: The engineer, I.S. Rozenkrants, invented a special device for the elimination of superphosphate, zinc oxide and coal dust, as well as of the smoke of sulfuric, phosphoric, and nitric acids. This device TsRP is shown in a diagram. The gas passes through canals and the dust particles are thrown by centrifugal force against the casing. Every m^2 of active cross section purifies 1,000 to 10,000 m^3 of gas per hour. The apparatus has two stages. The first stage is the room between rotor and stator. The second stage is the rotor. It may be used for the precipitation of HNO_3 and the separation of sulphurous gases, hydrogen sulfide, hydrocarbons, etc. The rotor is made of heat- and acid-resistant steel, plastics, etc. There is 1 set of diagrams.

1. Centrifuges--Equipment 2. Gases--Separation 3. Air--Purification 4. Particles (Airborne)--Control

Card 1/1

MALINOV, L.

Centrifugal rotary dust remover. Okh.truda i sots.strakh. no.1: 72-73 Ja '60. (MIRA 13:5)
(Dust--Removal)

MALIKOV, L.

Health lectures at a plant. Okhr. truda i sots. strakh. 3 no.8:45 Ag '60. (MIRA 13:9)

(Public health)

MALINOV, L.

Products made of wood waste. Zhil.-kom. khoz. 10 no.7:22-23 '60.
(MIRA 13:10)
(Wood waste)

MALINOV, L.

Tomorrow's look of the southwestern part of Moscow. Znan.sila 35 no.3:1 Mr '60. (MIRA 13:6)
(Moscow--City planning)

18(7), 18(1)

AUTHORS: Shteynberg, M. M., Kir'yanova, N. P., Shklyar, R. Sh, Malinov, L. S.

SOV/163-58-4-32/47

TITLE: Investigation of Aging and Mechanical Properties of Beryllium Bronze (Issledovaniye stareniya mekhanicheskikh svoystv berilliyevoy bronzy)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 4, pp 189 - 192 (USSR)

ABSTRACT: The investigation concerned aging and mechanical properties of the beryllium bronze as well as the influence of cold plastic deformation on notch impact strength and hardness of the bronze. The X-ray structure investigation of the aging of beryllium bronze with 2.05% Be showed that decomposition of the α-solution can take place in two phases as well as in one phase. At aging temperatures of 200 and 250° decomposition occurs in two phases and is distinctly to be seen in the X-ray diagrams after aging for 2 hours, or 30 minutes, respectively. At an increase of the aging time up to 8 hours at 200°, and up to 4 hours at 250°, the characteristics of the one-phase decomposition begin to show at the same time.- As from 300°, decomposition shows one-phase character. An inc-

Card 1/3

rease in the lattice period of the α-solution is observed after aging for more than 6 minutes at 300°, for over 2 minutes at 350°, and for over 30 seconds at 400°.- The line of the new phase (γ-phase) is clearly visible in the X-ray diagrams only after aging at 350°.- At the temperatures of two-phase decomposition and at 300°, where the decomposition starts to be one-phase, the electric resistance increases as compared with the one in the hardened state.- Plastic cold deformation greatly speeds up the two-phase decomposition. An intense change in the mechanical properties of bronze begins at 200°, i.e. at the temperature where a two-phase decomposition of the α-solution is ascertained by the X-ray structure analysis. With an increase in the aging temperature, the proportionality limit, the breaking limit, the hardness and the initial factor of consolidation increase while the relative stretching, the compression of the cross section and the notch impact strength decrease. At an aging temperature of 350°, these properties reach their extreme values; at a further rise in temperature, they begin to change in the opposite direction.- The final factor of consolidation

Investigation of Aging and Mechanical Properties of Beryllium Bronze

507/163-58-4-32/47

(at the end of consolidation) undergoes rather little change in dependence on temperature and aging time. Aging for two hours at 350° gives the maximum strength properties. Retarded cooling after aging, as from 450°, leads to the mentioned increase in strength properties and to the reduction of plasticity and, in particular, of the notch impact strength, as compared with accelerated cooling in water.- At otherwise equal strength properties, a bronze aged at under 350° has a higher notch impact strength than a bronze aged at over 400°. Plastic deformation leads to a certain increase in notch impact strength, both before and after aging. The increase in notch impact strength is particularly great when the plastic deformation occurs before or after aging at the temperatures of two-phase decomposition (200 and 250°). There are 3 figures and 1 Soviet reference.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute)

SUBMITTED: October 4, 1957

Card 3/3

32622
S/137/61/000/011/094/123
A060/A101

18.1220

AUTHORS: Shteynberg, M. M., Kir'yanova, N. P., Shklyar, R. Sh., Malinov, L.S.

TITLE: Ageing kinetics and mechanical characteristics of beryllium bronze

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 11, 1961, 24, abstract 11I149 (V sb. "Probl. metalloved. i term. obrabotki", no. 2, Moscow - Sverdlovsk, Mashgiz, 1960, 143-167)

TEXT: By means of an X-ray structure investigation it was established that in the process of ageing of Be-bronze containing (in %): Be 2.05, Ni 0.40, Fe 0.08, Si 0.12, the decomposition of α-solid solution may take place both by the 2-phase (at 200 - 250°C) and by the single phase ($\geqslant$ 300°C) process. The lines of the new phase (γ') appear after ageing at 350°C. Ageing at temperatures $<$ 300°C raises the ρ of the bronze as result of the considerable faults in the crystal lattice. At the temperatures of the single phase decomposition one observes a considerable lowering of ρ with a simultaneous attainment of the maximum of the crushing stress: 2-hr ageing at 350° yields σ_b of 136 kg/mm^2, σ_p 115 - 120 kg/mm^2 and H_B 300 - 370. The ductility and a_k of the alloy are very low. The intense lowering of the strength characteristics, raising of the

Card 1/2

Ageing kinetics and mechanical characteristics ...

δ, ψ, a_k, and the sharp lowering of ρ after ageing at temperatures $\geqslant 400 - 450^{\circ}C$ are the result of coagulation of the separated particles of the γ-phase, of the enlargement of grains and grain blocks, and also of the coherence disturbance on the phase separation boundary. Slow cooling from a temperature $\geqslant 400^{\circ}C$ strengthens the alloy as compared to water hardening. At equal strength characteristics, ageing at temperatures $< 350^{\circ}$ yields a higher a_k than at $> 450^{\circ}C$. Cold plastic deformation of hardened alloy considerably accelerates the 2 phase decomposition and raises the a_k and the brittle strength. A double ageing at $250^{\circ}C$ with cold plastic deformation before the second ageing ensures the same strength characteristics as does ageing at $300^{\circ}C$, but the a_k is raised by a factor of 2. Lower strength characteristics but also a lower tendency to brittle failure are possessed by Be-bronze aged at 250 - $300^{\circ}C$ in combination with cold plastic deforming. Ageing at temperatures $> 400^{\circ}C$ is undesirable, since it lowers the brittle strength of the alloy.

G Tyurin

[Abstracter's note: Complete translation]

Card 2/2

S/126/62/014/006/004/020
E111/E151

AUTHORS: Bogachev, I.N., and Malinov, L.S.

TITLE: Influence of chromium and nickel on the $\gamma \rightleftarrows \varepsilon$ transformation in an iron-manganese alloy

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.6, 1962, 828-833

TEXT: As this effect has not been adequately studied, the present research was considered to be of interest. An alloy of iron with 20% manganese was used as the standard and also as the base alloy for preparing the chromium- and nickel-alloyed materials: types Г20Х2 (G20Kh2), Г20Х6 (G20Kh6), Г20Х10 (G20Kh10), Г20Н2 (G20N2), Г20Н6 (G20N6), Г20Н10 (G20N10). X-ray, dilatometric, hardness-measurement and metallographic methods were used, the alpha-phase being determined magnetically. Addition of chromium or nickel was found to lower the temperature at which the $\gamma \rightarrow \varepsilon$ transformation commenced, but to have no effect on that of its completion. The commencing temperature of this transformation is a linear function of the alloying-element concentration. Chromium or nickel additions also cause the

reverse transformation to take place at a lower temperature; the temperature of both its commencement and completion being a linear function of alloying-element concentration. The amount of ε-phase decreases in proportion to the increase in alloying-element concentration, and is somewhat greater in quenched than in annealed specimens. The effect of chromium and nickel on the temperature range of the $\gamma \rightarrow \varepsilon$ transformation and the kinetics of the ε-phase formation on continuous cooling is similar to that on the martensitic transformation in carbon steels. The effect of nickel on the $\gamma \rightleftarrows \varepsilon$ transformation is about 5 times as great as that of chromium.
There are 6 figures and 2 tables.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S.M. Kirova (Ural Polytechnical Institute imeni S.M. Kirov)

SUBMITTED: May 24, 1962

L 10399-63 EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD

ACCESSION NR: AP3001694 S/0126/63/015/005/0678/0684

59
57

AUTHOR: Bogachev, I. N.; Malinov, L. S.

TITLE: Effect of chromium and nickel on phase transformations and strengthening of manganese steel during plastic deformation

SOURCE: Fizika metallov i metallovedeniye, v. 15, no. 5, 1963, 678-684

TOPIC TAGS: high-manganese G20 steel, cold deformation, phase transformations, strain hardening, effect of Cr, effect of Ni, prestraining, Epsilon phase, Alpha phase

ABSTRACT: Specimens of G20 high-manganese steel (compositions shown in Table 1 of Enclosure) annealed at 1050C were used to study the effect of Cr and Ni on phase transformation and strain hardening. It was found that both Cr and Ni stabilized austenite and delayed Epsilon-phase formation. Plastic deformation increased the amount of the Epsilon-phase in unalloyed G20 from 60 to 88%, in alloy G20Kh2 from 45 to 76%, and in alloy G20Kh6 from 32 to 52%. Ni was found to be a much stronger austenite stabilizer; the initial amount of Epsilon-phase in alloy G20N2 was only 16%; plastic deformation increased it to 32%. In all alloys,

Card 1/5

the highest rate of Epsilon-phase formation was observed during stretching of up to 4%. In alloy G20Kh12, which in the annealing condition was fully austenitic, an intensive formation of the Epsilon-phase occurred during stretching of up to 12%. In alloys G20N6 and G20N10 cold working produced a negligible amount of Epsilon-phase, not exceeding 2--3% at maximum deformation. The Alpha-phase formation rate was insignificant, not exceeding 5% for all alloys. No Alpha-phase formation was observed in alloys G20N6 and G20N10. Stretching reduced the dilatometric effects of the Epsilon-to-Gamma and Gamma-to-Epsilon transformations, shifted the temperature range of the Epsilon-to-Gamma transformation toward lower temperatures, and lowered the temperature of the beginning of the Gamma-to-Epsilon transformation. Both Cr and Ni lowered phase transformation temperatures. Cr and especially Ni decreased the strain-hardening exponent at strains of 0.2--2.0%. At strains of 2--18%, Ni alone slightly decreased the exponent. The effect of Cr and Ni on the mechanical properties of the alloys is presented in Table 2 of Enclosure. The yield strength of the alloys, which is generally low, can be increased by prestraining by 4--14%, depending on the alloy composition. Orig. art. has: 5 figures and 3 tables.

L 10399-63
ACCESSION NR: AP3001694

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirov (Ural Polytechnic Institute)

SUBMITTED: 29Oct62 DATE ACQ: 11Jul63 ENCL: 02

SUB CODE: 00 NO REF SOV: 005 OTHER: 001

Card 3/5

BOGACHEV, I.N.; MALINOV, L.S.; Prinimala uchastiye MIKULINSKAYA, O.A.

Effect of chromium and nickel on phase transformations and the hardening of manganese steel under the effect of plastic deformations. Fiz. met. i metalloved. 15 no.5:678-684 My '63. (MIRA 16:8)

1. Ural'skiy politekhnicheskiy institut im. Kirova.
(Manganese steel--Metallography)
(Phase rule and equilibrium)

BOGACHEV, I.N.; YEGOLAYEV, V.F.; MALINOV, L.S.

Stabilization of $\gamma \rightarrow \varepsilon$ transformations during recurrent phase transitions. Fiz. met. i metalloved. 16 no.4:544-550 O '63. (MIRA 16:12)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova.

ACCESSION NR: AP4013093 S/0126/64/017/001/0049/0055

AUTHORS: Bogachev, I. N.; Yegolayev, V. F.; Malinov, L. S.

TITLE: Transformation of austenite into ε-phase at low temperatures

SOURCE: Fizika metallov i metalloved., v. 17, no. 1, 1964, 49-55

TOPIC TAGS: austenite, austenitic transformation, epsilon phase, G19 iron, steel, iron, gamma epsilon transformation, supercooled austenite

ABSTRACT: Experiments were performed to determine the possibility of a complete supercooling of austenite, to study the isothermal formation of ε-phase at low temperatures, and to clarify the effect of heating and cooling rates on the γ-ε transformation. The test specimens were made of G19 iron containing (in %) 19.1 Mn, 0.05 C, 0.20 Si, 0.034 P, and 0.014 S. This metal was melted in a 50-kg induction furnace and was cast into ingots which were homogenized for 10 hours at 1150C and rolled into rods 6 mm in diameter (tempered at 1150C). A dilatometer provided with a photographic recording device and a thermostat was used in the tests. The temperatures of -40, -50, -90, -140, -160, and -180C, at which the

Card 1/3

ACCESSION NR: AP4013093

samples were held isothermally, were attained with dry ice, liquid nitrogen, and a mixture of acetone with nitrogen. To stabilize their austenite, the samples were heated to 950C and then subjected to 25 heating-chilling cycles between 400C and -196C. Experiments proved that $\gamma - \varepsilon$ transformation may progress in isothermal conditions, provided that the nonisothermally formed ε-phase is absent. In given temperature intervals the transformation started after incubation periods the length of which depended on the cooling temperature. Figure 1 of the Enclosure shows the rates of transformations at various temperatures. Studies of the temperature-transformation rate relationship proved that the rate reached its maximum at -90C. At a relatively low starting temperature for the $\gamma - \varepsilon$ transformation and at a rapid rate of chilling it was found possible to supercool the austenite either partly or fully. Under these conditions the ε-phase could be produced in the course of heating a sample. The rate of cooling and heating proved to exert a substantial influence on the progress of the transformation, with the low rates leading to a more complete effect (for the influence of the rates of heating and cooling on the dilatometric effect of the $\gamma - \varepsilon$ transformation see Fig. 2 of the Enclosures). The ε-phase produced before the start of an isothermal period served as an activator in the isothermal transfor-

ACCESSION NR: AP4013093

mation, as did the lowering of the heating rate down to a certain point. Further diminishing of the rate, however, slowed the process. The $\gamma - \varepsilon$ transformation exhibited all the features of usual phase transformations and should not be regarded as an athermal process. Orig. art. has: 6 graphs and 4 equations.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova (Ural Polytechnical Institute)

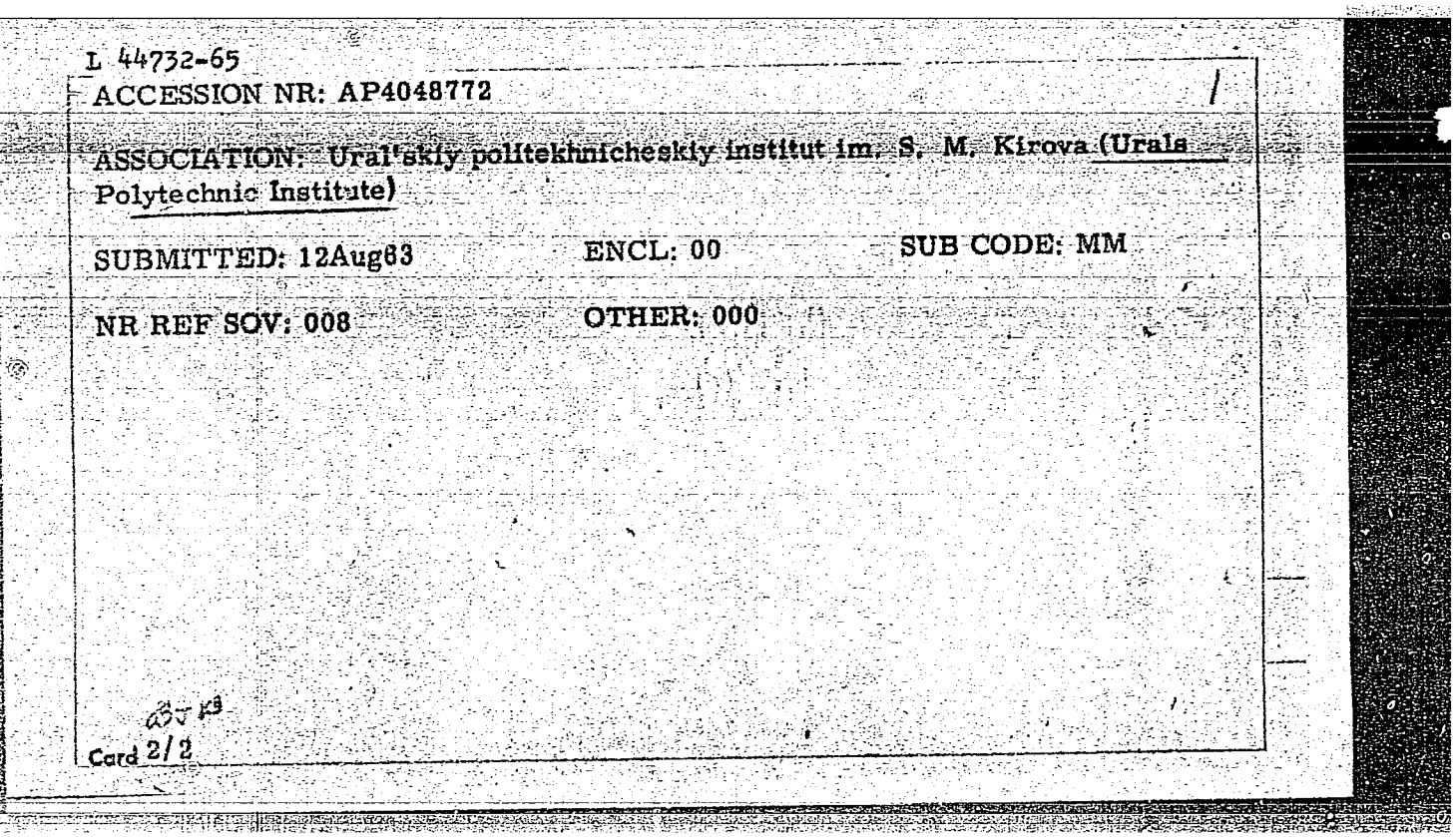
SUBMITTED: 06Apr63 DATE ACQ: 26Feb64 ENCL: 02

SUB CODE: MM NO REF SOV: 006 OTHER: 004

Card 3/3

ABSTRACT: The cavitational stability of several two-phase ($\gamma + \varepsilon$) and single-phase austenitic alloys of Fe + 20% Mn with chromium and nickel was investigated. It was found that the cavitational stability depends largely on the resistance to the microimpact by the solid solution, and this is determined by the alloying element (chromium or nickel). The initial structure of the alloy, and its capacity for phase transformation in the process of cavitation is of considerable importance. Orig. art. has: 6 figures and 2 tables.

APPROVED FOR RELEASE: 06/20/2000 CIA-RDP86-00513R001031810019-7"



L 44732-65

ACCESSION NR: AP4048772

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova (Urals Polytechnic Institute)

SUBMITTED: 12Aug63 ENCL: 00 SUB CODE: MM

NR REF SOV: 008 OTHER: 000

Card 2/2

BOGACHEV, I.N.; YEGOLAYEV, V.F.; MATINOV, L.S.

Isothermal formation of the ϵ-phase following precipitation hardening of iron-manganese alloys. Metalloved. i term. obr. met. no.4:2-8 Ap '65. (MIRA 18:5)

1. Ural'skiy politekhnicheskiy institut.

steel

SOURCE: IVUZ. Chernaya metallurgiya, no. 7, 1965, 161-165

TOPIC TAGS: steel hardening, austenite, martensite, steel mechanical property, heat treatment, plastic deformation / 30Kh10G10 steel

ABSTRACT: The study is concerned with finding the best heat treatment conditions for producing superior mechanical properties in 30Kh10G10 cast steel; for comparison, the mechanical properties of forged pieces were tested. The mechanical properties of cast and forged specimens were improved through a combined heat treatment (quenching from 1100C, again at 800C, cooling in water, and quenching again from 1100C) which raised the tensile strength by a factor of almost two and the plastic characteristics by a factor of three as compared to the cast state. The phenomena occurring during the heat treatment are described. The formation of martensite during deformation in the presence of an austenitic structure in the original state causes an increase in plasticity and a

Card 1/2

L 62501-65

ACCESSION NR: AP5018181

lowering of the yield point; if a considerable amount of martensite is obtained in the original structure by heat treatment or in the course of flow cooling of the casting, the steel has a high yield point and a reduced plasticity. The second quenching from 1100C after aging markedly improves the mechanical properties of the cast steel as a result of fragmentation of the grain. Unstable Fe-Mn austenitic steels such as 30Kh10G10 display a marked rise in yield point even under slight plastic deformation; thus, deformation by 1.5% stretching raises the yield point of 30Kh10G10 by 25%. This property must be considered in designing machine parts made of this steel. Orig. art. has: 2 figures and 4 tables.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural'sk Polytechnic Institute)

SUBMITTED: 16Mar65 ENCL: 00 SUB CODE: MM

NO REF SOV: 005 OTHER: 003

Card 2/2

MALINOV, L.S., kand. tekhn. [illegible] ... Prochn. i plastichn.
KURYAGIN, Yu.D.

Navigation resistance [illegible] chromium-manganese alloys.
Energomashinostroenie 11 no. [illegible] 32-36 N '65.
(MIRA 18:11)

L 21595-66 EWT(m)/EWP(t) IJP(c) JD/HW/JG/WB

ACC NR: AP6012272 (N) SOURCE CODE: UR/0114/65/000/011/0032/0036

AUTHOR: Malinov, L. S. (Candidate of technical sciences); Eysmondt, T. D. (Engineer)

ORG: none

TITLE: Cavitation resistance of chrome-manganese alloys

SOURCE: Energomashinostroyeniye, no. 11, 1965, 32-36

TOPIC TAGS: chromium steel, manganese steel, austenitic steel, corrosion resistant steel, corrosion resistance

ABSTRACT: The authors study the cavitation properties of a number of Fe-Cr-Mn alloys with high corrosion resistance. Approximately 50 alloys of various grades were studied. A shock-erosion stand was used for the cavitation tests. The specimens were rotated at a rate of 78 m/sec in a jet of water from a 5 mm nozzle with a constant head of 0.28 atm. The highest cavitation resistance among low-carbon Fe-Cr-Mn alloys was observed in unstable austenitic chrome-manganese alloys in which the austenite may be decomposed by deformation producing martensite and ε-phase. Chrome-manganese alloys have greater resistance to cavitation than the same alloys with the addition of nickel. This is due to the fact that nickel reduces the resistance of austenite to hydraulic shocks and increases its stability with respect to martensite transformations. The effect of Cr, Mn, N, Cu and Mo on breaking strength is determined mainly

UDC: 669.15:620.193.16

Card 1/2

L 24595-66

ACC NR: AP6012272

2

by their effect on the initial structure of the alloys as well as on the kinetics of martensite transformations during cavitation. Materials with combined resistance to cavitation and corrosion should be selected from the class of single-phase unstable austenitic steels which contain nitrogen and no nickel with a low percentage of carbon and a high chromium content. These materials may be alloyed by various elements to increase their resistance to corrosion if these elements are chosen in a combination and quantity which gives martensite transformations during cavitation and does not lead to the formation of a heterophase structure. Orig. art. has: 6 figures, 2 tables.

SUB CODE: 11/ SUBM DATE: 00/ ORIG REF: 008/ OTH REF: 000

Card 2/2 BK

MALINOV, M.

Sunburn in the mountains. p. 17.
(TURIST, Vol. 1, no. 9. Sept. 1956, Sofia, Bulgaria.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 12, December 1957 Uncl.

ZHILIN, G.A., inzhener; GRESYUK, M.I., inzhener; MALINOV, M.S., inzhener; CHISTOV, V.K., inzhener; GALANOVA, M.S., inzhener, redaktor; KHITROV, P.A., tekhnicheskiy redaktor

[Passenger train 2-4-2 locomotive] Passazhirskii parovoz 2-4-2. Pod obshchei red. G.A.Zhilina. Moskva, Gos.transp. zhel-dor. izd-vo, 1956. 362 p. (MLRA 9:8)
(Locomotives)

ZHILIN, G.A., inzhener. (g.Kolomna); KALINOV, M.S., inzhener. (g.Kolomna).

Important problems in prospective diesel locomotive construction.
Zhel.dor.transp. 38 no.10:9-17 O '56. (MLRA 9:11)
(Diesel locomotives)

MALINOV, M.S., inzhener; SHLYKOV, V.K. inzhener.

Increasing adhesion weight on passenger locomotives of type 2-4-2. Vest.TSNII MPS no.2:56-58 Mr '57. (MLRA 10:4)
(Locomotives)

AUTHOR: Malinov, M.S., Engineer SOV/122-58-5-8/26

TITLE: A Diesel Electric Freight Locomotive of 3 000 h.p. (Gruzovoy teplovoz moshchnost'yu 3000 l.s. s elektricheskoy peredachey)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, Nr 5, pp 35 - 38 (USSR).

ABSTRACT: A new diesel electric freight locomotive under construction at the Kolomna Plant is described. The new locomotive, type TE50, has a specific weight of 46 kg/hp, superior to all but the British "Deltic" locomotive (33 kg/hp) and the German V200 and V320 locomotives (35 kg/hp), of which the former has a special engine and the latter, a hydraulic transmission. A cut-away photograph is reproduced showing two driver cabins, one at each end. A 2-stroke, 16-cylinder diesel engine in the center of the locomotive is coupled by a flexible coupling to the traction generator. A generator for accessory supply is driven at 1 800 r.p.m. through a reduction gear. The same gear drives the traction generator exciter and an auxiliary generator for the control circuits and for accumulator charging. The brake air compressor is driven by a separate motor. The diesel engine has a bore of 230 mm, a

Card1/2

A Diesel Electric Greight Locomotive of 3 000 h.p. SOV/122-58-5-8/26

stroke of 300 mm, a power of 3 000 h.p. at 750 rpm, a mean effective pressure of 9.1 kg/cm^2, a maximum combustion pressure of 115 kg/cm^2, a specific fuel consumption of 175 g/hphr and a total weight of 12.2 tons. The new locomctive follows modern practice in providing water-cooled oil coolers. There are 3 figures.

Card 2/2 1. Locomotives--USSR 2. Diesel engines--Applications

Malinov, M. S.

AUTHOR: None Given SOV-25-58-9-56/62

TITLE: In the Pages of Periodicals (Po stranitsam zhurnalov)

PERIODICAL: Nauka i zhizn', 1958, Nr 9, p 76 (USSR)

ABSTRACT: Some articles, which appeared in Soviet periodicals, are reviewed.
The periodical "Avtomatika, telemekhanika i svyaz" (Nr 5, 1958) published an article by D. Lidin "The Exposition of New Techniques in Communication", which describes new models displayed at the Moscow exposition.
"Vestnik machinostroyeniya" (Nr 5, 1958) published an article by M.S. Malinov describing a new locomotive TE-50 actually in construction at the Kolomna plant.
"Zarubezhnaya radioelektronika" (Nr 5, 1958) published an article on three new magnetic elements for the memory equipment of foreign calculating machines.
In "Atomnaya tekhnika za rubezhom" (Nr 5, 1958) the new laboratories constructed at Harwell (England) are described.

Card 1/2

In the Pages of Periodicals

SOV-25-58-9-56/62

The periodical "Elektricheskiye stantsii" (Nr 9, 1958) published an article by the Candidate of Technical Sciences D.I. Azar'yev on the necessity to increase the carrying capacity of Soviet electric power plants.

1. Scientific reports--USSR 2. Periodicals--USSR

Card 2/2

MALINOV, M.S., inzh.; RODIONOVA, L.V., inzh.

Methods of improving dynamic characteristics of diesel locomotives. (MIRA 11:12)
Zhel.dor.transp. 40 no.10:35-40 O '58.
(Diesel locomotives--Dynamics)

MALINOV, M.S., inzh. (g.Kolomna)

Hydrostatic drive for the cooling system fans of a TEP60 electric locomotive. Elek. i tepl. tiaga 4 no.10:42-44 O '60. (MIRA 13:10)
(Electric locomotives--Cooling)

MALINOV, M.S., inzh. (g.Kolomna); VOLKOV, A.V., inzh. (g.Kolomna)

Boiler-type preheaters for diesel locomotives. Elek.i tepl.tiaga no.7:12-15 Jl '60. (MIRA 13:8)
(Diesel locomotives--Equipment and supplies)
(Air preheaters)

MALINOV, M.S.; KULIKOV, Yu.A.; CHERTOK, Ye.B.; YEVENKO, V.I., kand. tekhn. nauk, retsenzent; UVAROVA, A.F., tekhn. red.

[Cooling systems of diesel locomotives]Okhlazhdaiushchie ustroistva teplovozov. Moskva, Mashgiz, 1962. 256 p. (MIRA 16:1)

(Diesel locomotives—Cooling)

MALINOV, M.S., inzh.-konstruktor; CHERTOK, Ye.B., inzh.-konstruktor

Cooling system of the TEP60 main line diesel locomotive. Elek. i tepl.tiaga 7 no.2:26-30 F '63. (MIRA 16:2)

1. Kolomenskiy teplovozostroitel'nyy zavod im. V.V.Kuybysheva.
(Diesel locomotives--Cooling)

ZHILIN, G.A.; MALINOV, M.S.; RODOV, A.M.; SULIMTSEV, I.I.; SHIFRIN, M.G.; KISELEVA, N.P., inzh., red.; IL'IN, B.M., tekhn. red.

[TEP60 diesel locomotive for passenger trains] Passazhirskii teplovoz TEP60. Moskva, Transzheldorizdat, 1963. 122 p. (MIRA 16:9)

(Diesel locomotives)