Abstracts

(A) GENERAL

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—K. I V.

(B) CORROSION

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6 Oxidation - resistance of aluminide-coated superalloys–

E. P. Whelan and R. V. Dainty, AD 700882 (1969); Cobalt, Abs. No 49-63. Six oxidation-sulphidation resistant aluminide coatings were applied on super-alloys, and their oxidation behaviour under cyclic tests determined.

7 Liquid corrosion of hard alloys a high temperatures

V. A. Zhilin and V. M. Druzhinin Porosh. Metall (Russ) No. 2 (1970) 95; Cobalt, Abs. No. 49-98. The corrosion of WC-Co cutting tools by the cooling liquids was studied. The degree of corrosion reached a maximum at 600 to 650°C, falling rapidly and reaching a minimum at 1000°C when the cooling liquids vaporize and the gaseous interlayer protects the surface from attack.

8 Effect of alloying and heat treatment on the strength and cavitation resistance of alloys with age-hardenable martensite–

L. S. Malinow et al, Energomashinostroy. (Russ) No. (1967) 29, Cobalt, Abs. No. 49-113. In an attempt to find a cavitation-resistant material for hydraulic turbines, several maraging compositions were studied. After annealing and quenching. all steels contain 80-90% martensite except a Ni-Co-Mo-Ti-Al Steel which contained 45%. In spite of its lower martensite content, this steel has the highest hardness and cavitation resistance, probably associated with an improvement of the resistance of both martensite and austenite to micro-impacts.

9 An accelerated stress corrosion test–

A. H. Freedman, J Mat. 5 (1970) 431. Single-edge-notched and fatigue cracked specimens were tension loaded in NaCl solution and the threshold