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(54) Title: NICKEL DIFFUSION BRAZE ALLOY AND METHOD FOR REPAIR OF SUPERALLOYS

(57) Abstract: A braze alloy powder mixture that includes a low-melt powder composition and a high-melt powder composition. The low-melt powder composition is made of one or more low-melt powders and includes 50-70 % Ni, 8-20 % Cr, 8-15 % Ta, 4-10 % Co, 2-7 % Al, and up to 2.25 % B. The high-melt powder composition is made of one or more high-melt powders and includes 50-70 % Ni, 2-10 % Cr, 2-10 % Ta, 5-15 % Co, 2-10 % Al, 2-10 % W, and up to about 3 % each of Re, Mo and Hf. Up to about 1 % Ti, W, Mo, Re, Nb, Hf, Pd, Pt, Ir, Ru, C, Si, and/or Zr may be included in the low-melt powder, while the high-melt powder may include up to about 1 % each of Ti, Nb, C, B, Si, and Zr.

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