

Title (en)

PROTECTION SHIELD FOR A TURBINE BLADE MADE OF TITANIUM, AND BRAZING METHOD FOR SUCH A SHIELD

Publication

EP 0249092 B1 19900307 (FR)

Application

EP 87107673 A 19870526

Priority

FR 8607661 A 19860528

Abstract (en)

[origin: US4795313A] A protective tip (5) for a titanium steam-turbine blade (1), comprises 28% to 40% TiC, 12% to 26% Cr+Co, 1% to 6% Mo, 3% to 8% Ni 0.3% to 1.5% Cu and a balance of Fe. The tip (5) is brazed to the blade (1) by interposing a copper-based strip (6) having a thickness lying between 7/100 mm and 15/100 mm therebetween, then raising the temperature of the blade (1) and its tip (5) to between 900 DEG C. and 950 DEG C. in a vacuum or inert atmosphere oven. This temperature is maintained for a period of between thirty minutes and seventy-five minutes, and the oven is allowed to cool to ambient temperature. Optimal brazing also serves to harden the tip (5) possesses very good resistance to abrasion by water droplets.

IPC 1-7

C22C 29/10; F01D 5/28

IPC 8 full level

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CPC (source: EP US)

C22C 33/0292 (2013.01 - EP US); **F01D 5/28** (2013.01 - EP US); **Y10T 29/49337** (2015.01 - EP US)

Cited by

CN103603695A; EP0605152A1; US5366345A; DE4310896C1; US5448828A; EP0780187A1; FR2742689A1; FR3123380A1; WO2011039075A1

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