

Title (en)

Method for treating the surface of a rotational shaft used in fluid compressing apparatus.

Title (de)

Verfahren zur Oberflächenbehandlung von einer drehbaren Achse in einem Flüssigkeitskompressor.

Title (fr)

Méthode pour le traitement de la surface d'un axe rotatif d'un appareil de compression d'un fluide.

Publication

EP 0441630 B1 19950426 (EN)

Application

EP 91301008 A 19910207

Priority

- JP 3059190 A 19900209
- JP 4780290 A 19900228

Abstract (en)

[origin: EP0441630A1] A method for treating the surface of a rotational shaft used in a fluid compressing apparatus includes the step of providing the rotational shaft made of an iron system metal, the step of annealing the rotational shaft (101) at a temperature between a first temperature equal to a prescribed temperature determined by adding about 50 degrees centigrade to a temperature of an ion nitridation treatment and a second temperature equal to the transformation temperature of the iron system metal, the step of forming an iron nitride layer (103,107) in the surface of the rotational shaft by performing an ion nitridation treatment at a temperature between about 450 degrees centigrade and 550 degrees centigrade, and the step of forming a phosphate layer (109) on the iron nitride layer of the surface of the rotational shaft.

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