

Title (en)

PROCESS FOR MANUFACTURING WEAR-RESISTANT RUNNING FACES OF COMBUSTION-ENGINE CYLINDERS

Publication

**EP 0144817 A3 19850710 (DE)**

Application

**EP 84113675 A 19841113**

Priority

DE 3343783 A 19831203

Abstract (en)

[origin: ES8600784A1] In order to prevent the formation of fissures or tears in the walls of cylinders of an internal combustion engine, hardening tracks (4) generated by a carbon dioxide laser, are placed parallel to each other at an angle of inclination (  $\alpha$  ) with respect to the axis (3) of the wall of the cylinder or cylinder liner, and spaced from each other by a distance (X) which is greater than twice the distance (k) between the maxima (9, 10) of tension resulting in the operation of the ICE from the edges of the hardening track, thereby satisfying the condition: X is greater than  $2\alpha k$ .

IPC 1-7

**C21D 9/14**; **C21D 1/09**

IPC 8 full level

**F02F 1/00** (2006.01); **C21D 1/09** (2006.01); **C21D 1/70** (2006.01); **C21D 9/00** (2006.01); **C21D 9/08** (2006.01); **C21D 9/14** (2006.01); **F16J 10/04** (2006.01)

CPC (source: EP US)

**C21D 1/09** (2013.01 - EP US); **C21D 9/14** (2013.01 - EP US); **F05C 2203/04** (2013.01 - EP US); **Y10S 148/903** (2013.01 - EP US); **Y10S 148/91** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

**DE 3343783 C1 19840705**; DE 3470328 D1 19880511; EP 0144817 A2 19850619; EP 0144817 A3 19850710; EP 0144817 B1 19880406; ES 537972 A0 19851101; ES 8600784 A1 19851101; FI 76120 B 19880531; FI 76120 C 19880909; FI 844728 A0 19841130; FI 844728 L 19850604; JP H072970 B2 19950118; JP S60135527 A 19850718; US 4617070 A 19861014

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