

Title (en)
METHOD FOR HARDENING RING-SHAPED GROOVES BY MEANS OF LASER BEAMS

Title (de)
VERFAHREN ZUM HÄRTEN VON RINGNUTEN MIT LASERSTRAHLEN

Title (fr)
PROCEDE POUR DURCIR DES RAINURES ANNULAIRES PAR FAISCEAU LASER

Publication
EP 1173624 A1 20020123 (DE)

Application
EP 00930984 A 20000321

Priority
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Abstract (en)
[origin: DE19918808A1] A method for hardening the grooves of steel pistons or steel piston heads whereby hardening of the bottom of said grooves is avoided. The laser beam is directed onto the sides of the groove in an approximately tangential direction in relation to the outer diameter of the piston.

IPC 1-7
C21D 1/09; **F16J 9/00**

IPC 8 full level
F02F 3/00 (2006.01); **B23K 26/00** (2006.01); **C21D 1/09** (2006.01); **C21D 9/00** (2006.01); **F16J 9/00** (2006.01); **F16J 9/26** (2006.01); **B23K 103/04** (2006.01)

CPC (source: EP US)
C21D 1/09 (2013.01 - EP US); **C21D 9/0068** (2013.01 - EP US)

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JP2009540222A; WO2007140826A1; US8297179B2; WO2009062486A1

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