

Title (en)

METHOD OF AND TOOL FOR MACHINING SURFACES OF COMBUSTION ENGINES

Publication

EP 0295453 B1 19930303 (DE)

Application

EP 88108072 A 19880520

Priority

DE 3719796 A 19870613

Abstract (en)

[origin: EP0295453A2] 2.1 During the honing of, for example, the working surfaces of pistons, the material structure is deformed in the area of the edge zone. Following the honing, the working surface is retreated in a blasting unit with a liquid jet under high pressure. The requisite blasting pressure already leads to destruction of the graphite clusters embedded in the structure, as a result of which an optimum working surface cannot be obtained in the production run. <??>2.2 In order to provide a surface free of metal scales, but with the graphite clusters embedded in the structure not being destroyed or dissolved away, the surface (6) is brushed in addition to the honing and high-pressure blasting treatment. To carry out this method, a tool (3a) is provided which has a tool part, such as honing sticks and/or brush sticks (15), and in addition at least one blasting device (13). A surface free of metal scales is obtained by the combined high-pressure blasting and brush treatment. <??>2.3 The invention ensures that the graphite clusters present in the structure remain intact. The method is simple to carry out with the tool. <IMAGE>

IPC 1-7

B24B 33/02; B24B 33/08

IPC 8 full level

B24B 29/00 (2006.01); **B24B 29/08** (2006.01); **B24B 33/02** (2006.01); **B24B 33/08** (2006.01); **B24C 3/32** (2006.01)

CPC (source: EP US)

B24B 29/08 (2013.01 - EP US); **B24B 33/02** (2013.01 - EP US); **B24B 33/08** (2013.01 - EP US); **B24C 3/325** (2013.01 - EP US);
Y10T 29/4927 (2015.01 - EP US)

Cited by

EP0413847A1; EP2042266A3; DE3842047A1; DE19627926A1; US9579771B2

Designated contracting state (EPC)

DE FR GB IT SE

DOCDB simple family (publication)

EP 0295453 A2 19881221; EP 0295453 A3 19900516; EP 0295453 B1 19930303; DE 3719796 A1 19881222; DE 3719796 C2 19930114;
DE 3878742 D1 19930408; JP H0675821 B2 19940928; JP S6427850 A 19890130; US 4980996 A 19910101

DOCDB simple family (application)

EP 88108072 A 19880520; DE 3719796 A 19870613; DE 3878742 T 19880520; JP 14383188 A 19880613; US 20621588 A 19880613