

Title (en)
PISTON RING EXCELLENT IN RESISTANCE TO SCUFFING, CRACKING AND FATIGUE AND METHOD FOR PRODUCING THE SAME, AND COMBINATION OF PISTON RING AND CYLINDER BLOCK

Title (de)
KOLBENRING MIT AUSGEZEICHNETER BESTÄNDIGKEIT GEGEN REIBUNG, RISSBILDUNG UND ERMÜDUNG UND HERSTELLUNGSVERFAHREN DAFÜR UND KOMBINATION VON KOLBENRING UND ZYLINDERBLOCK

Title (fr)
SEGMENT DE PISTON PRESENTANT UNE RESISTANCE ELEVEE A L'EROSION, A LA FISSURATION ET A LA FATIGUE, PROCEDE PERMETTANT DE PRODUIRE CE SEGMENT ET COMBINAISON SEGMENT DE PISTON ET BLOC-CYLINDRES

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Application
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Abstract (en)
[origin: EP1304393A1] A piston ring having improved scuffing resistance, cracking resistance and fatigue resistance, consists of a high-chromium martensitic stainless steel and a sliding nitriding layer formed on the surface of said steel. The stainless steel consists of C: 0.3 to 1.0%; Cr: 14.0 to 21.0%, N: 0.05 to 0.50%, at least one of Mo, V, W and Nb: 0.03 to 3.0% in total, Si: 0.1 to 1.0%, Mn 0.1 to 1.0%, P: 0.05% or less, S: 0.05% or less, the balance being Fe and unavoidable impurities. The sliding nitriding layer comprises on its surface hard particles mainly consisting of nitrides in a range of from 0.2 to 2.0 μ m of average particle size, 7 μ m or less of the longest diameter, and from 5 to 30% in area ratio. <IMAGE>

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IPC 8 full level
F02F 5/00 (2006.01); **C21D 8/06** (2006.01); **C21D 9/40** (2006.01); **C21D 9/52** (2006.01); **C22C 38/00** (2006.01); **C22C 38/18** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/60** (2006.01); **C23C 8/26** (2006.01); **F16J 9/26** (2006.01)

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Citation (search report)
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