

Title (en)
Press roll

Title (de)
Presswalze

Title (fr)
Rouleau de presse

Publication
EP 0924337 A3 20000426 (DE)

Application
EP 98122860 A 19981202

Priority
DE 19756226 A 19971217

Abstract (en)
[origin: EP0924337A2] The press roller, for a paper making machine, has a cylindrical metal body (12) with an outer cladding (14) of at least one layer (16,18). At least the radially outermost layer (16) of the roller cladding (14) has a continuously changing construction in the radial direction (R) and over its thickness (d), in terms of its chemical composition and/or structure. The roller cladding (14) is applied at least partially by spraying. The bottom layer (18) of the cladding (14) is directly against the metal core (12), to prevent corrosion, to lie between the metal roller body (12) and the outer layer (16). The outermost layer (16) of the roller cladding (14) contains at least an oxide, and especially of Al₂O₃, Cr₂O₃, ZrO₂, TiO₂, SiO₂ and/or the like. It contains at least one carbide and especially WC, CrC and/or the like, and at least one nitride and especially TiN and/or the like, and/or at least one boride and especially TiB₂ and/or the like, or a mixture of two or more of these components. The radially outermost layer (16) can be a ceramic/metal material with at least one oxide of Al₂O₃, Cr₂O₃, ZrO₂, TiO₂, SiO₂ and/or the like. The outer layer (16) contains a plastics component and especially polytetrafluoroethylene, silicon and/or the like. The inner layer (18) also has a continually changing construction over at least part of its thickness, in terms of its chemical composition and/or structure, with a continuous construction change through the whole thickness of the total roller cladding (14).

IPC 1-7
D21F 3/08

IPC 8 full level
D21F 3/08 (2006.01)

CPC (source: EP)
D21F 3/08 (2013.01)

Citation (search report)
• [DA] WO 9113204 A1 19910905 - TAMPELLA PAPERTECH OY [FI]
• [DA] EP 0207921 A1 19870107 - YAMAUCHI RUBBER IND CO LTD [JP]
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CN104334795A; CN104520505A; EP1612329A1; US10563354B2; WO2008086896A1; WO2013151743A1

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