

Title (en)  
IMPROVEMENT OF ZINC PHOSPHATE TREATMENT FOR COLD WORKING

Publication  
**EP 0363200 A3 19900718 (EN)**

Application  
**EP 89310196 A 19891005**

Priority  
JP 25243588 A 19881006

Abstract (en)  
[origin: EP0363200A2] The present invention provides a zinc phosphating method for cold working which hardly produces sludge and can be carried out in a short period of time. The method comprises treating a steel material with a surface conditioning solution comprising 1 to 20 ppm of titanium ion and having a pH of 8 to 11, and then treating it with a chemical solution comprising zinc ion in a concentration of 1 to 20 g/l, phosphate ion in a concentration of at least 5 g/l, nitrate ion in a concentration sufficient to have a concentration ratio of phosphate ion / nitrate ion of at least 1/3, pyrophosphate or tripolyphosphate ion in a concentration of 0.2 to 2 g/l, Fe (II) ion in a concentration of 0.1 to 20 g/l and a material decomposing nitrite ion and not oxidizing the Fe (II) ion in a concentration of at least 0.05 g/l.

IPC 1-7  
**C23C 22/23**

IPC 8 full level  
**C23C 22/12** (2006.01); **C23C 22/13** (2006.01); **C23C 22/23** (2006.01); **C23C 22/78** (2006.01)

CPC (source: EP KR)  
**C23C 22/23** (2013.01 - EP KR)

Citation (search report)  
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Designated contracting state (EPC)  
DE FR GB

DOCDB simple family (publication)  
**EP 0363200 A2 19900411**; **EP 0363200 A3 19900718**; JP H02101174 A 19900412; KR 900006033 A 19900507

DOCDB simple family (application)  
**EP 89310196 A 19891005**; JP 25243588 A 19881006; KR 890014407 A 19891006