

Title (en)
Wear and corrosion resistant surfaces

Title (de)
Verschleiss- und korrosionsbeständige Oberfläche

Title (fr)
Surfaces résistantes à l'usure et à la corrosion

Publication
EP 0902099 A1 19990317 (DE)

Application
EP 98116523 A 19980901

Priority
CH 213497 A 19970910

Abstract (en)
A wear and corrosion resistant surface or coating contains ≥ 1 wt.% vanadium. Independent claims are also included for (i) a surface or coating consisting of a steel of composition (by wt.) 12-25% Cr, 0-15% Mn, 2-6% Mo, 0-15% Ni, ≥ 1 (preferably 2-12)% V, 0-6% N, balance Fe and impurities; and (ii) production of a wear and corrosion resistant surface or coating by applying an alloy steel, containing ≥ 1 wt.% V and optionally in powder form, onto a ceramic, metallic or other surface. Preferred Feature: The alloy steel is applied by thermal spraying, the nitrogen content (required for hard phase formation) being incorporated in the steel before, during or after spraying.

Abstract (de)
Technische Schichten, wie insbesondere Oberflächen oder Beschichtungen, welche verschleiss- und korrosionsbeständig sind, aufweisend eine Stahllegierung, enthalten einen Masseanteil an Vanadium ≥ 1 %, damit sie eine hohe Verschleissbeständigkeit aufweisen.

IPC 1-7
C23C 4/06; **C22C 38/24**; **C22C 38/46**

IPC 8 full level
C22C 38/24 (2006.01); **C23C 4/06** (2016.01); **C23C 4/12** (2016.01); **C23C 4/18** (2006.01)

CPC (source: EP)
C22C 38/24 (2013.01); **C23C 4/06** (2013.01); **C23C 4/12** (2013.01); **C23C 4/18** (2013.01)

Citation (search report)

- [X] EP 0266149 A2 19880504 - HITACHI LTD [JP], et al
- [A] EP 0383466 A1 19900822 - TAMPELLA TELATEK OY [FI]
- [A] GB 1439947 A 19760616 - UNION CARBIDE CORP
- [X] DATABASE WPI Section Ch Week 9228, Derwent World Patents Index; Class M13, AN 92-231797, XP002088918
- [X] DATABASE WPI Section Ch Week 8745, Derwent World Patents Index; Class M13, AN 87-318278, XP002088919
- [X] DATABASE WPI Section Ch Week 9606, Derwent World Patents Index; Class M13, AN 96-056467, XP002088920
- [X] DATABASE WPI Section Ch Week 9530, Derwent World Patents Index; Class M13, AN 95-229056, XP002088921
- [A] D.BIRCHON: "DICTIONARY OF METALLURGY", 1965, GEORGE NEWNES LIMITED, LONDON, GB, XP002088917

Cited by
WO2024103093A1; DE102018103321A1; CN115341168A; DE102014113846A1; AT526715A1; CN110004400A; DE102018103319A1; EP4292810A1; WO02083362A1; WO2006136610A3

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