

Title (en)
Use of a steel containing chromium.

Title (de)
Verwendung eines chromhaltigen Stahles.

Title (fr)
Mise en oeuvre d'un acier au chrome.

Publication
EP 0136997 A1 19850410 (DE)

Application
EP 84890115 A 19840620

Priority
AT 235983 A 19830628

Abstract (en)
[origin: US4564566A] The pressure plate of a pressing tool is made of a chromium containing alloy essentially consisting of, each in percent by weight, carbon up to 0.3, silicon up to 1.0, manganese up to 1.5, chromium in the range of 11 to 17.2, molybdenum up to 1.5, nickel up to 6.0, copper up to 4.5, columbium up to 0.45, and nitrogen up to 0.10, the remainder being iron and impurities resulting from the melting conditions, wherein a chromium equivalent defined as the sum of % chromium+% molybdenum+1.5x% siliconx0.5x% columbium has a value smaller than or equal to 17.2, a nickel equivalent defined as the sum of % nickel+0.5x% manganese+30x% carbon+20x% nitrogen has a value greater than or equal to 4.65 the chromium equivalent to nickel equivalent ratio has a value smaller than or equal to 3.0 and the ferrite content is smaller or equal to 5%. The pressure plate is provided with a uniformly structured working surface by chemical or electrochemical etching.

Abstract (de)
Die Erfindung betrifft die Verwendung eines chromhaltigen Stahles mit Ferritgehalt für Preßwerkzeuge, insbesondere Preßbleche, wobei die Arbeitsfläche auf chemischem bzw. elektrochemischem Wege strukturiert ist und das Preßwerkzeug in Gew.-% <IMAGE> Rest Eisen und erschmelzungsbedingte Verunreinigungen aufweist, mit der Maßgabe, daß das Chrom-Äquivalent % Chrom + % Molybdän + 1,5 % Silizium + 0,5 % Niob <=17,2 und das Nickel-Äquivalent % Nickel + 0,5% Mangan + 30 % Kohlenstoff + 20 % Stickstoff >=4,65 ist, wobei das Verhältnis Chrom-Äquivalent zu Nickel-Äquivalent <=3,0 beträgt und der Ferritgehalt <=5 % ist.

IPC 1-7
C22C 38/18; **C22C 38/42**; **C22C 38/44**

IPC 8 full level
C22C 38/00 (2006.01); **C22C 38/48** (2006.01)

CPC (source: EP US)
C22C 38/001 (2013.01 - EP US); **Y10T 428/12979** (2015.01 - EP US); **Y10T 428/12993** (2015.01 - EP US)

Citation (search report)
• [Y] GB 973489 A 19641028 - FIRTH VICKERS STAINLESS STEELS LTD
• [A] FR 2045584 A1 19710305 - UGINE KUHLMANN
• [Y] E. HOUDREMONT: "Handbuch der Sonderstahlkunde", Band 1, 1956, Seiten 421-423, Springer-Verlag, Göttingen/Heidelberg, DE;

Cited by
AT407647B; EP0606885A1; GB2173816A; US4721600A; GB2173816B; EP0207052B1; EP0257780B1

Designated contracting state (EPC)
DE FR GB IT SE

DOCDB simple family (publication)
EP 0136997 A1 19850410; **EP 0136997 B1 19870401**; AT 377785 B 19850425; AT A235983 A 19840915; DE 3462927 D1 19870507; JP H0672283 B2 19940914; JP S6013061 A 19850123; US 4564566 A 19860114

DOCDB simple family (application)
EP 84890115 A 19840620; AT 235983 A 19830628; DE 3462927 T 19840620; JP 13122384 A 19840627; US 61893884 A 19840608