

Title (en)

ROLL RING, COMPRISING CEMENTED CARBIDE AND CAST IRON, AND METHOD FOR MANUFACTURE OF THE SAME

Publication

EP 0374116 B1 19930721 (EN)

Application

EP 89850432 A 19891212

Priority

SE 8804503 A 19881213

Abstract (en)

[origin: EP0374116A1] The present invention discloses a roll ring for hot and/or cold rolling. The rolling track comprises one or several cemented carbide rings, which are cast into a casing made by an iron alloy. The cast alloy comprising a materially graphitic cast iron, which after the casting contains residual austenite. This residual austenite is at subsequent heat treatment or treatments partly or totally transformed under volume increase to mainly bainite with the aim of reducing or totally eliminating the differential shrinkage between the cast iron and the cemented carbide as a result from cooling after the casting.

IPC 1-7

B21B 27/03; B22D 19/16; C21D 5/00; C22C 37/04

IPC 8 full level

B21B 27/00 (2006.01); **B21B 27/02** (2006.01); **B21B 27/03** (2006.01); **B22D 19/16** (2006.01); **C21D 5/00** (2006.01); **C21D 9/38** (2006.01);
C22C 37/00 (2006.01); **C22C 37/04** (2006.01)

CPC (source: EP KR)

B21B 27/035 (2013.01 - EP); **C21D 5/00** (2013.01 - EP); **C21D 9/40** (2013.01 - KR)

Citation (examination)

PATENT ABSTRACTS OF JAPAN, vol. 5, no. 33 (M-57)(705), 28 February 1981; & JP-A-55 158872 (Kubota Tekko K.K.) 10.12.1980

Cited by

CN1050074C; EP0753594A1; US6095958A; CN1068634C; US5897016A; AU657296B2; US10337089B2; EP2508262A1; US6490793B1;
US10730104B2; EP2508670A1; WO2012136704A1

Designated contracting state (EPC)

AT BE DE ES FR GB IT LU NL

DOCDB simple family (publication)

EP 0374116 A1 19900620; EP 0374116 B1 19930721; AT E91725 T1 19930815; AU 4585089 A 19900621; AU 615125 B2 19910919;
BR 8906357 A 19900821; CA 2005220 A1 19900613; CA 2005220 C 20000314; DD 296011 A5 19911121; DE 68907702 D1 19930826;
DE 68907702 T2 19931028; ES 2042071 T3 19931201; JP H02243736 A 19900927; JP H0699776 B2 19941207; KR 900010021 A 19900706;
KR 960007504 B1 19960605; SE 464226 B 19910325; SE 8804503 D0 19881213; SE 8804503 L 19900614; ZA 899448 B 19900926

DOCDB simple family (application)

EP 89850432 A 19891212; AT 89850432 T 19891212; AU 4585089 A 19891204; BR 8906357 A 19891208; CA 2005220 A 19891212;
DD 33555689 A 19891212; DE 68907702 T 19891212; ES 89850432 T 19891212; JP 32070889 A 19891212; KR 890018461 A 19891213;
SE 8804503 A 19881213; ZA 899448 A 19891211