

Title (en)  
MARAGING STEEL FOR METALLIC BELT

Title (de)  
MARAGING STAHL FÜR METALLBAND

Title (fr)  
ACIER MARAGING POUR COURROIE MÉTALLIQUE

Publication  
**EP 2180073 A1 20100428 (EN)**

Application  
**EP 07790636 A 20070711**

Priority  
JP 2007063832 W 20070711

Abstract (en)  
A maraging steel for metallic belts which has a composition capable of being reduced in the content of TiN serving as a starting point for fatigue fracture in a high-cycle-rate region. The composition facilitates nitriding to heighten the surface hardness. The steel has a nitrided surface layer having increased compressive residual stress and hence improved flexural fatigue strength. In the steel, former austenite crystal grains have been reduced in size in order to secure higher strength and higher ductility. The maraging steel consists of, by mass%, up to 0.01% C, up to 0.1% Si, up to 0.1% Mn, up to 0.01% P, up to 0.005% S, 17.0-22.0% Ni, 0.1-4.0% Cr, 3.0-7.0% Mo, from more than 7.0 to 20.0% Co, up to 0.1% Ti, up to 2.5% Al, up to 0.03% N, up to 0.005% O, up to 0.01% B (exclusive zero), and the balance of Fe and unavoidable impurities, wherein  $\text{Co}/3 + \text{Mo} + 4\text{Al}$  is 8.0-15.0%.

IPC 8 full level  
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**C22C 38/54** (2013.01 - EP KR US)

Cited by  
US11186886B2; WO2016170519A1; WO2016170397A1; WO2017064684A1; WO2017064537A1; CN108138286A; CN104259240A;  
US2018087123A1; US10731231B2

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