Title (en)
 Process for the detection of vibrations of a roll stand

Title (de)
 Verfahren zur Erkennung von Vibrationen eines Walzgerüstes

Title (fr)
 Procédé de détection des vibrations d'une cage de laminoir

Publication
 EP 1657003 A1 20060517 (FR)

Application
 EP 05292206 A 20051020

Priority
 FR 0412109 A 20041112

Abstract (en)
 Vibration detection procedure, especially for use on a rolling mill with rollers between two uprights to reduce the thickness of a product, has the roller locking cylinders fitted with sensors delivering instant position signals (POS). These are stored in real time and permanently and compared with a representative vibration sample for the mill in a space/time observation window (F), the size of the sample and dimensions of the window being selected as a function of the rolling mill stand and the frequency of vibrations to be detected, and a vibration detection signal is released when the signal sample is not contained within the window.

IPC 8 full level
 B21B 38/00 (2006.01)

CPC (source: EP KR US)
 B21B 38/00 (2013.01 - KR); **B21B 38/008** (2013.01 - EP US); B21B 37/007 (2013.01 - EP US); B21B 37/62 (2013.01 - EP US)

Citation (search report)
- [A] DE 10023554 A1 20011122 - ABB PATENT GMBH [DE]
- [A] EP 1457274 A2 20040915 - VOEST ALPINE IND ANLAGEN [AT]
- [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 10 31 October 1996 (1996-10-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 08 30 August 1996 (1996-08-30)
- [A] PATENT ABSTRACTS OF JAPAN vol. 009, no. 300 (M - 433) 27 November 1985 (1985-11-27)

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 CN113226581A; CN104070066A; CN113182351A; US11779978B2

Designated contracting state (EPC)
 DE ES FR GB IT

DOCDB simple family (publication)
 EP 1657003 A1 20060517; **EP 1657003 B1 20071205**; BR PI0504894 A 20060627; CN 1330437 C 20070808; CN 1772405 A 20060517; DE 602005003633 D1 20080117; DE 602005003633 T2 20081030; ES 2298969 T3 20080516; FR 2877862 A1 20060519; FR 2877862 B1 20070216; KR 101227320 B1 20130128; KR 20060052624 A 20060519; US 2006236736 A1 20061026; US 7188496 B2 20070313

DOCDB simple family (application)
 EP 05292206 A 20051020; BR PI0504894 A 20051025; CN 200510115201 A 20051111; DE 602005003633 T 20051020; ES 05292206 T 20051020; FR 0412109 A 20041112; KR 20050107958 A 20051111; US 25697005 A 20051025