

Title (en)
DEVICE FOR THE SURVEILLANCE OF A MILL TRAIN OR A WATER MILL

Publication
EP 0054535 B1 19841128 (DE)

Application
EP 81890194 A 19811203

Priority
AT 613380 A 19801216

Abstract (en)
[origin: US4477722A] In monitoring rod or wire rolling mills it is useful to determine whether the rolling and cooling trains are free of obstacles. To that end a light source and an optoelectric sensor are swivelled into the traveling line of the goods to be rolled and after measurement they are swivelled out of the traveling line. The measured data are supplied to a control unit to which also detectors (30, 31) for the traveling goods arranged in front of the supply end and/or behind the discharge end of the rolling train are connected.

IPC 1-7
B21B 33/00; F16P 3/14; G01V 9/04

IPC 8 full level
B21B 1/00 (2006.01); **B21B 28/04** (2006.01); **B21B 33/00** (2006.01); **B21C 51/00** (2006.01); **G01B 11/02** (2006.01); **G01N 21/89** (2006.01); **G01N 21/892** (2006.01); **G01V 8/12** (2006.01); **G01V 9/00** (2006.01)

CPC (source: EP US)
B21B 33/00 (2013.01 - EP US)

Cited by
WO9700148A1

Designated contracting state (EPC)
BE CH DE FR GB IT LI LU

DOCDB simple family (publication)
EP 0054535 A2 19820623; **EP 0054535 A3 19830216**; **EP 0054535 B1 19841128**; AT 369591 B 19830110; AT A613380 A 19820515; DE 3167506 D1 19850110; JP S57146413 A 19820909; JP S628248 B2 19870221; US 4477722 A 19841016

DOCDB simple family (application)
EP 81890194 A 19811203; AT 613380 A 19801216; DE 3167506 T 19811203; JP 20234781 A 19811215; US 32839481 A 19811207