

Title (en)

METHOD FOR THE CONTROLLED MAINTAINING OF A DISTANCE BETWEEN THE ROOF AND THE FACE IN LONGWALL MINING OPERATIONS

Title (de)

VERFAHREN ZUR GESTEUERTEN EINHALTUNG EINES KAPPE-KOHLENSTOSS-ABSTANDES BEI STREBBETRIEBEN

Title (fr)

PROCEDE DE MAINTIEN REGULE D'UN ECART CHAPEAU-GRISOU DANS DES INSTALLATIONS D'EXPLOITATION PAR TAILLE

Publication

**EP 2247826 A1 20101110 (DE)**

Application

**EP 08715852 A 20080219**

Priority

EP 2008001263 W 20080219

Abstract (en)

[origin: WO2009103304A1] Disclosed is a method for the controlled maintaining of a mechanically favorable distance (33) between the roof and the face in longwall coal mining operations comprising a face conveyor (20), at least one extraction machine (22), and a hydraulic shield support. In said method, the inclination of the top canopy (13) and the floor skid (11) in the mining direction is determined by means of inclination sensors (17) mounted on at least three of the four main components of each shield support frame (10), such as the floor skid (11), the gob shield (14), the supporting connection rods (16), and in the gob zone of the top canopy (13), the effects on the distance (33) between the roof and the face are determined in a computer unit on the basis of the measured data when the angle of inclination of the top canopy (13) changes, and the parameters that are crucial for the working cycle of the shield support frame (10) are automatically adjusted, said working cycle consisting of a retracting, advancing, and setting process.

IPC 8 full level

**E21C 35/24** (2006.01); **E21C 41/16** (2006.01); **E21D 23/00** (2006.01); **E21D 23/03** (2006.01)

CPC (source: EP US)

**E21C 35/24** (2013.01 - EP US); **E21C 41/16** (2013.01 - EP US); **E21D 23/0004** (2013.01 - EP US); **E21D 23/0034** (2013.01 - EP US); **E21D 23/03** (2013.01 - EP US)

Citation (search report)

See references of WO 2009103304A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

**WO 2009103304 A1 20090827**; AU 2008351273 A1 20090827; AU 2008351273 B2 20110714; CN 101952548 A 20110119; CN 101952548 B 20140108; EP 2247826 A1 20101110; EP 2247826 B1 20140813; PL 2247826 T3 20150130; RU 2010133869 A 20120327; RU 2470156 C2 20121220; US 2010320827 A1 20101223; US 8567870 B2 20131029

DOCDB simple family (application)

**EP 2008001263 W 20080219**; AU 2008351273 A 20080219; CN 200880127061 A 20080219; EP 08715852 A 20080219; PL 08715852 T 20080219; RU 2010133869 A 20080219; US 91847608 A 20080219