

## Title (en)

DEVICE ON A COAL CHARGING CAR FOR LIFTING COVERS FROM FILLING HOLE FRAMES IN THE FURNACE ROOF OF A COKE FURNACE AND FOR CLEANING THE FILLING HOLE FRAMES

## Title (de)

VORRICHTUNG AN EINEM KOHLEFÜLLWAGEN ZUM ABHEBEN VON DECKELN AUS FÜLLOCHRAHMEN IN DER OFENDECKE EINES KOKSOSENS UND REINIGEN DER FÜLLOCHRAHMEN

## Title (fr)

DISPOSITIF SUR CHARIOT DE REMPLISSAGE DE CHARBON DESTINÉ À SOULEVER DES COUVERCLES DE CADRES À TROUS DE REMPLISSAGE DANS LA VOÛTE D'UN FOUR À COKE ET À NETTOYER LES CADRES À TROUS DE REMPLISSAGE

## Publication

**EP 2245116 A2 20101103 (DE)**

## Application

**EP 09707638 A 20090124**

## Priority

- EP 2009000460 W 20090124
- DE 102008008291 A 20080207

## Abstract (en)

[origin: CA2713851A1] The invention relates to a device on a coal charging car for lifting covers from filling hole frames in the furnace roof of a coke furnace and for cleaning the filling hole frames. The basic design of the device comprises a cover lifter (3) having a supporting arm (4) with a lifting magnet (5), a frame cleaner (6) having a supporting arm (4') with a cleaning head (7), and lifting devices (8, 8') for vertically adjusting the supporting arms (4, 4'). The cover lifter (3) and the frame cleaner (6) can be horizontally displaced by means of a travelling gear (12, 12') between an operating position (A) in which the lifting magnet (5) or the cleaning head (7) is aligned with a filling hole (13) in the furnace roof of the coke furnace, and a rest position (B) spaced apart from the filling hole. The device according to the invention is characterized in that the travelling gear (12, 12') comprises a travelling frame (15) which can be horizontally displaced on tracks (14) on the underside of the coal charging car along a first axis and a supporting frame (16) arranged inside the travelling frame (15), said supporting frame (16) being movably guided on the travelling frame along a second axis at a right angle to the direction of movement of the travelling frame (15), and the lifting devices (8, 8') for the cover lifter (3) and/or the frame cleaner (6) being arranged on the supporting frame.

## IPC 8 full level

**C10B 31/04** (2006.01); **C10B 25/24** (2006.01); **C10B 43/04** (2006.01)

## CPC (source: EP US)

**C10B 25/24** (2013.01 - EP US); **C10B 31/04** (2013.01 - EP US); **C10B 43/04** (2013.01 - EP US); **C10B 25/14** (2013.01 - US); **C10B 31/00** (2013.01 - US); **C10B 31/02** (2013.01 - US); **C10B 43/00** (2013.01 - US); **C10B 43/02** (2013.01 - US)

## Citation (search report)

See references of WO 2009097984A2

## 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 MK MT NL NO PL PT RO SE SI SK TR

## Designated extension state (EPC)

AL BA RS

## DOCDB simple family (publication)

**DE 102008008291 B3 20090709**; AR 070565 A1 20100421; AU 2009211901 A1 20090813; AU 2009211901 B2 20130110; BR PI0907369 A2 20150714; CA 2713851 A1 20090813; CL 2009000172 A1 20091218; CN 101939403 A 20110105; CN 101939403 B 20130515; EP 2245116 A2 20101103; EP 2245116 B1 20140702; JP 2011511140 A 20110407; JP 5502758 B2 20140528; KR 101529357 B1 20150616; KR 20100111295 A 20101014; MX 2010008303 A 20101112; PL 2245116 T3 20150227; RU 2010137116 A 20120320; RU 2485165 C2 20130620; TW 201002809 A 20100116; TW I472604 B 20150211; UA 98998 C2 20120710; US 2011030157 A1 20110210; US 8714899 B2 20140506; WO 2009097984 A2 20090813; WO 2009097984 A3 20091112; ZA 201005606 B 20111130

## DOCDB simple family (application)

**DE 102008008291 A 20080207**; AR P090100373 A 20090204; AU 2009211901 A 20090124; BR PI0907369 A 20090124; CA 2713851 A 20090124; CL 2009000172 A 20090127; CN 200980104405 A 20090124; EP 09707638 A 20090124; EP 2009000460 W 20090124; JP 2010545384 A 20090124; KR 20107018309 A 20090124; MX 2010008303 A 20090124; PL 09707638 T 20090124; RU 2010137116 A 20090124; TW 98103967 A 20090206; UA A201010652 A 20090124; US 81267209 A 20090124; ZA 201005606 A 20100805