

Title (en)

Connector for mechanical and electrical connection of an anode to the anodic frame of an aluminium production cell and device for grasping and tightening/loosening such a connector

Title (de)

Verbinder für den mechanischen und elektrischen Anschluss einer Anode an den Anodenrahmen einer Zelle zur Herstellung von Aluminium und Vorrichtung zum Greifen und Festziehen/Lockern eines solchen Verbinders

Title (fr)

Connecteur pour le raccordement mécanique et électrique d'une anode au cadre anodique d'une cellule de production d'aluminium et dispositif de préhension et de serrage/desserrage d'un tel connecteur

Publication

EP 1876265 A2 20080109 (FR)

Application

EP 07301005 A 20070427

Priority

FR 0652519 A 20060614

Abstract (en)

The connector (10) for mechanical and electrical connection of an anode to an anodic frame of an aluminum production cell by a fused-salt electrolysis, comprises pressing surface having an omega-shaped body (26) to cooperate with an anode rod connecting to the frame. The pressing body is separated from clamps or cross-pieces connecting them with one another, and is fixed in an isostatic way on the connector. The pressing body comprises two plane surfaces (27, 28) extending vertically from the median zone to the connector, and a wing extending vertically. The connector (10) for mechanical and electrical connection of an anode to an anodic frame of an aluminum production cell by a fused-salt electrolysis, comprises pressing surface having an omega-shaped body (26) to cooperate with an anode rod connecting to the frame. The pressing body is separated from clamps or cross-pieces connecting them with one another, and is fixed in an isostatic way on the connector. The pressing body comprises two plane surfaces (27, 28) extending vertically from the median zone to the connector, and a wing extending vertically. The anodic frame is equipped with fixing hooks to cooperate with the connector, which is made up of two clamps or jaws, articulated on a common axis and actuated in an antagonistic manner on the level of their free ends to a screw of clamp with two zones (22, 23). The plane surfaces are received on swivel joints that are spared on the level of the cross-pieces joining the clamps, and are connected with one another by a portion around an articulation axis (19) of the clamps. The vertical wing is received in a movable manner in a housing spared for posterior zone of the cross-pieces. Unit constituted by the plane surfaces, the vertical wing and the portion defining the omega is monobloc. An independent claim is included for a device for gripping and tightening/loosening of the connector.

Abstract (fr)

Ce connecteur est destiné au le raccordement mécanique et électrique d'une anode au cadre anodique d'une cellule de production d'aluminium par électrolyse ignée, ledit cadre anodique étant pourvu de crochets de fixation destinés à coopérer avec le connecteur (10). Le connecteur est constitué des deux étriers ou mâchoires (11, 12) faisant fonction de levier, articulés sur un axe commun (19), dont les prolongement respectifs sont reçus au sein desdits crochets et sont actionnés de manière antagoniste au niveau de leurs extrémités libres au moyen d'une vis de serrage (22) à deux zones (23, 24) à pas contraire coopérant au niveau de traverses (17, 18) joignant lesdites extrémités libres des étriers (11, 12). La surface presseuse du connecteur (10), c'est-à-dire la zone destinée à coopérer avec la tige d'anode afin de permettre la connexion de cette dernière avec le cadre anodique, est constituée par un organe presseur (26) distinct des étriers (11, 12) ou des traverses (15, 16) les solidarisant l'un à l'autre, ledit organe presseur (26) étant fixé de manière isostatique sur ledit connecteur.

IPC 8 full level

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CPC (source: EP)

B25B 5/08 (2013.01); **C25C 3/10** (2013.01); **C25C 3/125** (2013.01); **C25C 3/16** (2013.01)

Citation (applicant)

- FR 2854906 A1 20041119 - ECL [FR]
- EP 0584024 A1 19940223 - PECHINEY ALUMINIUM [FR]

Cited by

CN106929879A; AU2011300604B2; CN109317824A; CN109763144A; FR2989693A1; EP2841626A4; FR3050462A1; RU2724774C2; EP4079939A1; US8888156B2; WO2013159218A1; WO2012032234A1

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DOCDB simple family (publication)

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