Title (en)

Device for the installation and withdrawal of a porous plug

Title (de

Spülstein Ein- und Ausbauwerkzeug

Title (fr)

Outil pour l'installation et l'extraction d'une brique de barbotage

Publication

EP 2343386 B1 20130828 (DE)

Application

EP 11150157 A 20110105

Priority

DE 102010004958 A 20100112

Abstract (en)

[origin: EP2343386A1] The sink-handling device externally coupled to a bottom vessel (9) of a metallurgical vessel (10) in a region of a sink (12) arranged into the vessel and with a coupling element (13), which is capable of transmitting tension- and compressive force to the sink, arranged on a tensile member, is claimed. The tensile member is a translationally movable hollow spindle (5), which is stored in a spindle nut, which is rotatably arranged within a worm wheel in rotational manner with the worm wheel, where the worm wheel stands with a drive screw in intervention. The sinkhandling device externally coupled to a bottom vessel (9) of a metallurgical vessel (10) in a region of a sink (12) arranged into the vessel and with a coupling element (13), which is capable of transmitting tension- and compressive force to the sink, arranged on a tensile member, is claimed. The tensile member is a translationally movable hollow spindle (5), which is stored in a spindle nut, which is rotatably arranged within a worm wheel in rotational manner with the worm wheel, where the worm wheel stands with a drive screw in intervention. The worm wheel and the drive screw are arranged in a gearbox, which is fixed by locking means standing in operational connection at the bottom vessel. The locking means is part of a bayonet fixing formed at the bottom vessel. The sink-handling device protrudes at the sink with a glass flushing pipe protruding in the coupling position into the hollow spindle. The head of the hollow spindle comprises a coupling element applied into the coupling position of the sink-handling device to the sink tension- and pressure force transmission capability to a flange of the glass flushing tube. The coupling element adjoins in areawise manner on both sides under embracing the flange borders at the flange, and comprises projections co-operating with assigned recesses of the flange, where the projections are guided by the side facing towards at the sink of the flange through the recesses and after subsequent relative rotation of the gas flushing pipe and the sink-handling device are positioned to each other on the side facing towards the sink of the flange. The locking means is aligned with the bottom vessel in the operational connection and the coupling element is arranged with the flange in the operational connection in such a way that the relative rotation of the sink and the sink-handling device are formed to each other on both simultaneously into its respective coupling position.

IPC 8 full level

B22D 1/00 (2006.01); C21C 5/34 (2006.01); C21C 5/48 (2006.01); F27D 3/16 (2006.01)

CPC (source: EP)

B22D 1/005 (2013.01); C21C 5/34 (2013.01); C21C 5/48 (2013.01); F27D 3/16 (2013.01); F27D 2003/161 (2013.01)

Cited by

EP2783773A1; CN103353232A; US2023226597A1; US11858033B2; WO2024110602A1; DE102014205899A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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