

Title (en)
Apparatus for transporting metallic workpieces

Title (de)
Vorrichtung zum Transportieren metallischer Werkstücke

Title (fr)
Dispositif de transport des pièces métalliques

Publication
EP 1464905 A1 20041006 (DE)

Application
EP 04005375 A 20040306

Priority
DE 20305423 U 20030404

Abstract (en)
The device (1) is for transporting metallic workpieces, particularly during heat treatment and comprises a transport unit (2) which is moved horizontally by a movement mechanism (3). The transport unit is borne by a frame (7) relatively movable to the movement mechanism. The transport unit is floatingly located in relation to the frame, by means of elastic bearing bodies (13), preferably made of rubber. The elastic bearing bodies have at least one preferably steel inlay plate. The transport unit (2) is a heat-insulated and gas and/or vacuum-tight transport chamber. For a vacuum-tight connection, the transport unit has a connection side tension device (12). The tension device is formed by at least two tension units movable relatively to the transport chamber, which engage in the tension position in abutments formed on a counter module.

Abstract (de)
Um eine Vorrichtung (1) zum Transportieren metallischer Werkstücke bereitzustellen, die eine positionsgenaue Ankopplung der Transporteinrichtung an ein Gegenmodul, beispielsweise an eine Wärmebehandlungskammer ermöglicht, wird mit der Erfindung vorgeschlagen, daß die Transporteinrichtung von einem relativ zum Fahrwerk verfahrbar angeordneten Gestell (7) getragen ist, wobei die Transporteinrichtung gegenüber dem Gestell (7) schwimmend gelagert ist. <IMAGE>

IPC 1-7
F27D 3/12; **C21D 9/00**

IPC 8 full level
F27D 3/00 (2006.01); **C21D 9/00** (2006.01); **F27D 3/12** (2006.01)

CPC (source: EP US)
C21D 9/0018 (2013.01 - EP US); **F27D 3/12** (2013.01 - EP US)

Citation (search report)
• [AD] EP 1229137 A1 20020807 - IPSEN INT GMBH [DE]
• [A] FR 2782156 A1 20000211 - FOURS IND B M I BAUDASSE MARTI [FR]
• [A] FR 1469600 A 19670217 - LOIRE ATEL FORGES
• [A] EP 0893510 A1 19990127 - REFRATTARI BREBBIA S R L [IT]
• [A] US 5052923 A 19911001 - PETER WOLFGANG [DE], et al

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1464905 A1 20041006; **EP 1464905 B1 20060628**; AT E331926 T1 20060715; CN 100526483 C 20090812; CN 1536310 A 20041013; DE 20305423 U1 20040812; DE 502004000858 D1 20060810; ES 2268513 T3 20070316; PL 1464905 T3 20061130; RU 2004110094 A 20051010; RU 2335720 C2 20081010; US 2004197168 A1 20041007

DOCDB simple family (application)
EP 04005375 A 20040306; AT 04005375 T 20040306; CN 200410032189 A 20040405; DE 20305423 U 20030404; DE 502004000858 T 20040306; ES 04005375 T 20040306; PL 04005375 T 20040306; RU 2004110094 A 20040402; US 80185704 A 20040317