

Title (en)

Method and apparatus for filling and discharging a filling material.

Title (de)

Verfahren und Vorrichtung zum Füllen und Leeren eines Füllmaterials.

Title (fr)

Méthode et dispositif pour le remplissage et vidange d'un matériau de remplissage.

Publication

EP 0640416 A3 19950524 (EN)

Application

EP 94305623 A 19940729

Priority

- JP 20880293 A 19930730
- JP 20880393 A 19930730
- JP 20880493 A 19930730

Abstract (en)

[origin: EP0640416A2] A discharging furnace (4) and a filling furnace (3) are disposed in the upper and lower parts of a filling and discharging furnace (2). The discharging furnace has a reservoir (5), with a sloping bottom surface protruding toward the filling furnace and provided with a valve (9). Hot air heated by a duct heater (18) through a duct (16) is fed mainly into the discharging furnace while a remaining portion of the hot air is fed into the filling furnace. In the discharging furnace molten filling material from a bent (worked) workpiece (6) is collected in the reservoir and, when the valve is opened, is introduced into a straight (unworked) workpiece (1) which is carried by a filling carrier (12) in the filling furnace. The filling carrier is divided into three parts comprising a filling deck (30), a carrier body (31) and a sealing deck (32), the filling deck (30) having a nozzle (52) and the sealing deck a seal member (60). When the sealing deck (32) is moved upwards, a workpiece lifting deck (38) is also moved up to a condition in which the seal member is engaged with the lower end of the unworked workpiece, and the top end of the latter engages with the nozzle. The filling material is now be filled through the nozzle into the workpiece. If the specification of the workpiece 1 is changed, the nozzle and the seal member are replaced. <IMAGE>

IPC 1-7

B21D 9/16

IPC 8 full level

B21D 9/16 (2006.01)

CPC (source: EP)

B21D 9/16 (2013.01)

Citation (search report)

[A] GB 564623 A 19441005 - BRISTOL AEROPLANE CO LTD, et al

Cited by

CN110434248A

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0640416 A2 19950301; **EP 0640416 A3 19950524**; **EP 0640416 B1 19971001**; BR 9403112 A 19950411; CN 1053406 C 20000614; CN 1100676 A 19950329

DOCDB simple family (application)

EP 94305623 A 19940729; BR 9403112 A 19940729; CN 94114904 A 19940730