

Publication

EP 0776146 A3 19970709 (FR)

Application

EP 96203552 A 19911127

Priority

- EP 92901510 A 19911127
- US 62123190 A 19901130

Abstract (en)

[origin: WO9209397A1] Apparatus for inductively heating metal can lids (50) includes high permeability, low-conductivity cores (10, 12, 14) having at least two magnetically opposite polar portions (20, 22, 24) both directed toward a conveyance path (16) for the can lids (50). High-frequency AC currents (68) are applied to the windings (352) of the cores (10, 12, 14), thereby inducing AC heating currents in the can lids (50) and heating them sufficiently to drive off moisture. The cores (10, 12, 14) may be E-shaped (Fig. 1), and may be disposed in modules (Fig. 12) at various longitudinal positions (Fig. 5) along the conveyance path (16) and/or radial positions (Fig.6) around the conveyance path (16). Closed-loop temperature control apparatus (80) may also be included to prevent overheating of the can closures (50) in the event of unintended stoppage of the production line.

IPC 1-7

H05B 6/44; **H05B 6/10**; **H05B 6/02**; **B05D 3/02**; **B65G 21/20**

IPC 8 full level

H05B 6/10 (2006.01); **F26B 23/08** (2006.01); **H05B 6/02** (2006.01); **H05B 6/14** (2006.01); **H05B 6/36** (2006.01); **H05B 6/44** (2006.01)

CPC (source: EP)

H05B 6/103 (2013.01); **H05B 6/36** (2013.01); **H05B 6/44** (2013.01)

Citation (search report)

- [A] US 4333246 A 19820608 - SULLIVAN RICHARD W, et al
- [A] US 4339645 A 19820713 - MILLER EDWARD A
- [A] US 4351430 A 19820928 - MOJDEN WALLACE W
- [A] US 4364466 A 19821221 - MOJDEN WALLACE W
- [A] US 4340801 A 19820720 - ISHIBASHI KAZUHISA, et al
- [A] US 4017704 A 19770412 - COLLINS III JOHN W, et al
- [A] US 3581872 A 19710601 - GROSSJOHANN HEINRICH
- [A] DE 3835302 A1 19890803 - BERNAL ROTARY SYSTEMS INC [US]

Cited by

EP1404154A1; US7315011B2; WO0224965A1; WO2004030412A1; WO0035250A1; WO2004039506A3

Designated contracting state (EPC)

CH DE GB LI

DOCDB simple family (publication)

WO 9209397 A1 19920611; CN 1047276 C 19991208; CN 1080454 A 19940105; DE 69128096 D1 19971204; DE 69128096 T2 19980226; DE 69132177 D1 20000608; DE 69132177 T2 20001221; EP 0583242 A1 19940223; EP 0583242 A4 19931011; EP 0583242 B1 19971029; EP 0776146 A2 19970528; EP 0776146 A3 19970709; EP 0776146 B1 20000503; JP H06510622 A 19941124; ZA 923420 B 19930127

DOCDB simple family (application)

US 9108960 W 19911127; CN 92103528 A 19920511; DE 69128096 T 19911127; DE 69132177 T 19911127; EP 92901510 A 19911127; EP 96203552 A 19911127; JP 50810992 A 19911127; ZA 923420 A 19920512