

Title (en)
CAN BODY MAKING APPARATUS

Publication
EP 0297596 A3 19900905 (EN)

Application
EP 88110508 A 19880630

Priority
• US 6984087 A 19870701
• US 12628087 A 19871130

Abstract (en)
[origin: EP0536812A2] A redraw apparatus is provided for a can body making apparatus wherein the redraw carriage (40) of the redraw apparatus is mounted for substantially friction-free sliding reciprocating movement over a pair of spaced apart support posts (70,72) which are fixedly mounted on the housing (18) holding the can forming and ironing dies. Also, a counterbalancing system (110) is provided for applying a force to counterbalance the weight of a portion of structures used to reciprocate the redraw carriage (40). Additionally, a ram assembly (150) is provided for supporting a ram (14) for movement through the redraw apparatus and the can forming and ironing dies wherein a pair of spaced apart elongated shafts (154,156) are fixedly mounted and a ram carriage (12) having the ram attached thereto is provided with liquid bearings (180,182) for mounting the ram carriage (12) on the elongated shafts (154,156) for substantially friction free movement thereover. A guide liquid bearing is also used to ensure proper alignment of the ram.

IPC 1-7
B21D 51/26; **B21D 22/30**

IPC 8 full level
B21D 22/28 (2006.01); **B21D 22/30** (2006.01); **B21D 51/26** (2006.01)

CPC (source: EP KR)
B21D 22/30 (2013.01 - EP); **B21D 51/26** (2013.01 - EP KR)

Citation (search report)
• US 3696657 A 19721010 - MAYTAG JOHN HARDY
• GB 1373681 A 19741113 - REYNOLDS METALS CO
• DE 2519412 A1 19751113 - MATRIX ENG LTD
• US 4506935 A 19850326 - SUZUKI HIROSHI [JP], et al

Cited by
EP0460112A4; GB2301546A; GB2301546B; WO9934942A1; WO2014164952A1; US9399248B2; US10343208B2

Designated contracting state (EPC)
AT BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)
EP 0536812 A2 19930414; **EP 0536812 A3 19930512**; AU 1852688 A 19890105; CA 1336247 C 19950711; CN 1030371 A 19890118; EP 0297596 A2 19890104; EP 0297596 A3 19900905; JP S6487024 A 19890331; KR 890001655 A 19890328

DOCDB simple family (application)
EP 92121016 A 19880630; AU 1852688 A 19880629; CA 570907 A 19880630; CN 88104013 A 19880701; EP 88110508 A 19880630; JP 16478488 A 19880701; KR 880008193 A 19880630