

Title (en)

PROCESS FOR MANUFACTURING TUBES BY POWDER METALLURGY AND TUBULAR WORK PIECES OBTAINED THEREBY (SEMI-PRODUCTS)

Publication

EP 0141349 B1 19871007 (DE)

Application

EP 84112604 A 19841018

Priority

DE 3338367 A 19831021

Abstract (en)

[origin: EP0141349A1] 1. A process for the powder-metallurgical manufacture of tubes, in which powder of metal and/or metal alloy is loaded into a thin-walled box consisting of an inner circumferential tube surface and an outer circumferential tube surface and a base, the box then being closed at its opposite side from the base with an annular lid and exposed to cold isostatic pressure, compression or moulding of the powder thereby being effected inside the box so that a compact or dimensionally stable tube blank is obtained, which is then extruded under heat, characterized in that before the heat treatment the inner tube is provided at at least one end area with at least one bulge (15 or 16) gentle or shallow in form and extending over the circumference, a gentle transition being formed between the bulge (15 or 16) and the rest of the inner tube.

IPC 1-7

B22F 3/20; B22F 3/04

IPC 8 full level

B25C 1/06 (2006.01); **B22F 3/04** (2006.01); **B22F 3/12** (2006.01); **B22F 3/20** (2006.01); **B22F 5/00** (2006.01); **B22F 5/12** (2006.01)

CPC (source: EP KR)

B22F 3/04 (2013.01 - EP); **B22F 3/1258** (2013.01 - EP); **B22F 3/20** (2013.01 - EP); **B25C 1/06** (2013.01 - KR)

Designated contracting state (EPC)

BE DE FR GB IT SE

DOCDB simple family (publication)

EP 0141349 A1 19850515; EP 0141349 B1 19871007; BR 8405321 A 19850903; CA 1228707 A 19871103; DE 3338367 C1 19850926; DE 3466656 D1 19871112; ES 536956 A0 19851101; ES 8600986 A1 19851101; JP H0515763 B2 19930302; JP S60169504 A 19850903; KR 850004036 A 19850701; KR 890003494 A 19890415; KR 890004603 B1 19891120; KR 890004604 B1 19891120

DOCDB simple family (application)

EP 84112604 A 19841018; BR 8405321 A 19841019; CA 466063 A 19841022; DE 3338367 A 19831021; DE 3466656 T 19841018; ES 536956 A 19841019; JP 22029384 A 19841019; KR 840006580 A 19841020; KR 870008810 A 19870811