

Title (en)
FORMING COMPLEX HOLLOW SECTIONED STRUCTURAL MEMBERS

Publication
EP 0181203 A3 19870121 (EN)

Application
EP 85308072 A 19851106

Priority
GB 8428064 A 19841106

Abstract (en)
[origin: EP0181203A2] A method is described of forming relatively complex I-sectioned tubular beam from relatively simple O-sectioned tubular stock either seamed or seamless provided that the material of the stock is superplastically deformable. The O-sectioned stock is sealed and filled with inert gas, heated to superplastic forming temperature and, in one embodiment, is placed in a mould which has regions inwardly movable to compress the stock into a desired shape, the gaseous pressure thus formed internally of the sealed stock causing the material of the stock to conform to the final interior shape of the mould. In a further embodiment the sealed, filled and heated stock is urged axially through a die which compresses the stock and is again constrained to conform with the final interior shape of the die by virtue of its internal gaseous pressure.

IPC 1-7
B21D 47/01; **B21C 37/15**

IPC 8 full level
B21C 37/15 (2006.01); **B21D 47/01** (2006.01)

CPC (source: EP)
B21C 37/151 (2013.01); **B21C 37/155** (2013.01); **B21D 47/01** (2013.01)

Citation (search report)
• [A] GB 1415510 A 19751126 - BRITISH AIRCRAFT CORP LTD
• [A] DE 2941972 A1 19810430 - THYSSEN INDUSTRIE [DE]
• [A] US 2055771 A 19360929 - MCLAUGHLIN JOSEPH E

Cited by
US4989774A; EP2273069A3; FR2691088A1; US8365388B2; US8529720B2; US8986490B2; US8920893B2; US8241004B2; WO02076652A1; US7721443B2; US8701286B2; US8182233B2; US8381398B2; US8857054B2

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 0181203 A2 19860514; **EP 0181203 A3 19870121**; GB 8428064 D0 19841212

DOCDB simple family (application)
EP 85308072 A 19851106; GB 8428064 A 19841106