

12 **EUROPEAN PATENT APPLICATION**

21 Application number: **85308072.9**

51 Int. Cl.: **B 21 D 47/01, B 21 C 37/15**

22 Date of filing: **06.11.85**

30 Priority: **06.11.84 GB 8428064**

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43 Date of publication of application: **14.05.86**
Bulletin 86/20

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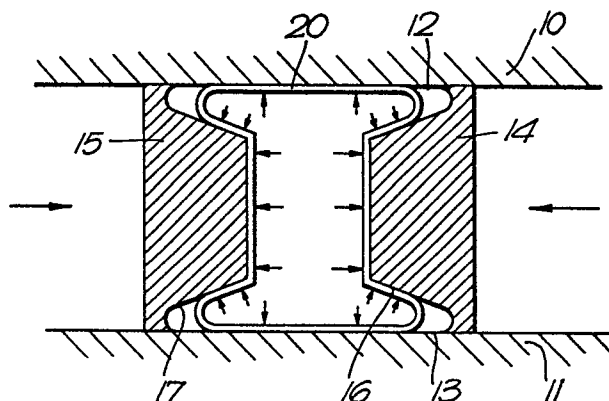
84 Designated Contracting States: **DE FR GB**

88 Date of deferred publication of search report: **21.01.87 Bulletin 87/4**

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54 **Forming complex hollow sectioned structural members.**

57 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.





European Patent
Office

EUROPEAN SEARCH REPORT

0181203

Application number

EP 85 30 8072

| DOCUMENTS CONSIDERED TO BE RELEVANT | | | |
|---|---|--|--|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int. Cl.4) |
| A | GB-A-1 415 510 (BRITISH AIRCRAFT) * claim 1 * | 1 | B 21 D 47/01 B 21 C 37/15 |
| A | DE-A-2 941 972 (THYSSEN) * claim 1 * | 1 | |
| A | US-A-2 055 771 (LAUGHLIN) * figure 1 * | 3 | |
| | | | TECHNICAL FIELDS SEARCHED (Int. Cl.4) |
| | | | B 21 D 22/00 B 21 D 26/00 B 21 D 47/00 B 21 C 37/00 |
| The present search report has been drawn up for all claims | | | |
| Place of search BERLIN | | Date of completion of the search 20-10-1986 | Examiner SCHLAITZ J |
| CATEGORY OF CITED DOCUMENTS | | | |
| X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document | | T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document | |