

Title (en)  
Connecting element

Title (de)  
Verbindungselement

Title (fr)  
Élément de raccord

Publication  
**EP 0724061 A3 19990630 (DE)**

Application  
**EP 96105101 A 19910810**

Priority  
• DE 4030335 A 19900925  
• DE 4041161 A 19901221  
• DE 9102189 U 19910225  
• EP 91113443 A 19910810

Abstract (en)  
[origin: EP0477513A2] The invention relates to a window-bar hollow section made of metal, in particular aluminium, for an insulating glazing unit, having a longitudinal weld which is arranged invisibly in a section recess. The invention also relates to a method for producing the window-bar hollow section, a colour-plated or anodised strip, in particular of aluminium, preferably being used, in which the longitudinal edges of the strip are formed into a tube by being bent towards one another until they abut, whereupon the longitudinal edges are welded and the tube is further profiled to form the hollow section with predetermined cross-sectional form, and a section recess being formed into the tube in the region of the weld directly after the welding operation in such a way that the weld is situated at the bottom of the section recess so that it cannot be seen from the outside. The invention furthermore relates to a window-bar construction for mounting between two panes of glass, in particular window panes with window-bars consisting of a hollow section, in particular of window-bar hollow sections of the abovementioned type, at least one window-bar cross being formed by attaching to a main hollow section at a predetermined angle at least two mutually aligned transverse sections which surround the main profile in an overlapping manner. To make it possible for the window-bar construction under discussion to be built up on the basis of extremely thin hollow sections, the invention provides that a skeleton be used as connection elements for the particular hollow sections, on which skeleton the hollow sections are placed. Said skeleton comprises a pin which passes through the main section and is fixedly connected to connection elements which are firmly fitted into the transverse hollow sections, insertion openings for the pin being provided in the main section which are dimensioned in such a way that the pin is guided essentially without play in the plane of the window-bar cross but with play transversely with respect to said plane.

IPC 1-7  
**E06B 3/663; E06B 3/99**

IPC 8 full level  
**B21C 37/08** (2006.01); **B21D 21/00** (2006.01); **B21D 39/06** (2006.01); **B21D 47/01** (2006.01); **B21D 51/00** (2006.01); **E06B 3/66** (2006.01); **E06B 3/663** (2006.01); **E06B 3/667** (2006.01); **E06B 3/68** (2006.01); **E06B 3/96** (2006.01); **E06B 3/99** (2006.01)

IPC 8 main group level  
**E06B** (2006.01)

CPC (source: EP)  
**E06B 3/6604** (2013.01); **E06B 3/667** (2013.01); **E06B 3/68** (2013.01); **E06B 3/99** (2013.01)

Citation (search report)  
• [A] GB 2220694 A 19900117 - ASHTON IND SALES LIMITED [GB]  
• [A] DE 2637034 A1 19780223 - LINGEMANN HELMUT  
• [A] DE 3638355 A1 19880511 - FUEHRER ANDREAS [DE]  
• [A] DE 8913616 U1 19900104

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

DOCDB simple family (publication)  
**EP 0477513 A2 19920401; EP 0477513 A3 19930428; EP 0477513 B1 19961127**; AT E145707 T1 19961215; AT E162588 T1 19980215; AT E177504 T1 19990315; AT E208457 T1 20011115; AT E216025 T1 20020415; CZ 268491 A3 19930512; CZ 283254 B6 19980218; CZ 286034 B6 19991215; CZ 287588 B6 20001213; DE 59108376 D1 19970109; DE 59108927 D1 19980226; DE 59109106 D1 19990415; DE 59109224 D1 20011213; DE 59109233 D1 20020516; DE 9116873 U1 19940526; DE 9116882 U1 19940505; DK 0477513 T3 19970512; DK 0577150 T3 19990927; DK 0578268 T3 19980914; EP 0577150 A1 19940105; EP 0577150 B1 19990310; EP 0578268 A1 19940112; EP 0578268 B1 19980121; EP 0724061 A2 19960731; EP 0724061 A3 19990630; EP 0724061 B1 20011107; EP 0801202 A2 19971015; EP 0801202 A3 19990623; EP 0801202 B1 20020410; ES 2032730 T1 19930301; ES 2032730 T3 19970201; ES 2110939 T1 19980301; ES 2112934 T3 19980416; ES 2130193 T3 19990701; FI 100730 B 19980213; FI 914462 A0 19910924; FI 914462 A 19920326; FI 956263 A0 19951227; FI 956263 A 19951227; FI 972601 A0 19970618; FI 972601 A 19970618; FI 97637 B 19961015; FI 97637 C 19970127; GR 3022311 T3 19970430; GR 3025985 T3 19980430; GR 3029823 T3 19990630; GR 920300091 T1 19930217; GR 970300064 T1 19980130; HU 216266 B 19990528; HU 912702 D0 19920128; HU T60359 A 19920828; JP H0687043 A 19940329; NO 300819 B1 19970728; NO 913227 D0 19910819; NO 913227 L 19920326; PL 168382 B1 19960229; PL 291812 A1 19920615; RU 2061168 C1 19960527; RU 2107138 C1 19980320; RU 95105461 A 19970427; SK 268491 A3 19940907; TR 26479 A 19950315; TR 26988 A 19940913

DOCDB simple family (application)  
**EP 91113443 A 19910810**; AT 91113443 T 19910810; AT 93112155 T 19910810; AT 93112168 T 19910810; AT 96105101 T 19910810; AT 97111659 T 19910810; CS 268491 A 19910830; CZ 127195 A 19950517; CZ 139796 A 19910830; DE 59108376 T 19910810; DE 59108927 T 19910810; DE 59109106 T 19910810; DE 59109224 T 19910810; DE 59109233 T 19910810; DE 9116873 U 19910810; DE 9116882 U 19910810; DK 91113443 T 19910810; DK 93112155 T 19910810; DK 93112168 T 19910810; EP 93112155 A 19910810; EP 93112168 A 19910810; EP 96105101 A 19910810; EP 97111659 A 19910810; ES 91113443 T 19910810; ES 93112155 T 19910810; ES 93112168 T 19910810; ES 97111659 T 19910810; FI 914462 A 19910924; FI 956263 A 19951227; FI 972601 A 19970618; GR 920300091 T 19930217; GR 970300064 T 19980130; GR 970400077 T 19970116; GR 980400005 T 19980122; GR 990400913 T 19990330;

HU 270291 A 19910814; JP 26251091 A 19910917; NO 913227 A 19910819; PL 29181291 A 19910924; RU 95105461 A 19950414;  
SK 268491 A 19910830; SU 5001553 A 19910924; TR 10493 A 19910919; TR 89691 A 19910919