

Title (en)  
STIFFENING ELEMENT FOR A LATTICE GIRDER

Publication  
**EP 0381615 A3 19910410 (DE)**

Application  
**EP 90810043 A 19900119**

Priority  
CH 34289 A 19890201

Abstract (en)  
[origin: EP0381615A2] For strengthening triangular girders in underground working, stiffening elements are welded between the three chords (T1, T2, T3). Such a stiffening element consists of three triangular wire polygons (10, 20, 30) connected to one another in one piece, of which two meet together at the apex chord (T3) and thus form a wire pyramid. The third wire polygon (30) is perpendicular to the plane determined by the axes of the base chords (T1, T2). Since neither this wire polygon (30) nor the wire polygon (10) adjoining it on the one side of the wire pyramid requires a cross strut between the base chords (T1, T2), considerable saving of material combined with higher bending strength is obtained. <IMAGE>

IPC 1-7  
**E21D 11/18**

IPC 8 full level  
**E04C 3/08** (2006.01); **E04C 5/065** (2006.01); **E21D 11/10** (2006.01); **E21D 11/18** (2006.01); **E04C 3/04** (2006.01)

CPC (source: EP US)  
**E04C 3/08** (2013.01 - EP US); **E04C 5/065** (2013.01 - EP US); **E21D 11/107** (2013.01 - EP US); **E21D 11/18** (2013.01 - EP US); **E04C 2003/0486** (2013.01 - EP US); **E04C 2003/0495** (2013.01 - EP US)

Citation (search report)  
• [A] DE 2556087 A1 19770616 - KELLER JULIUS GEORG STEFAN DIP  
• [AD] GB 2195677 A 19880413 - PANTEX STAHL AG

Cited by  
DE102012108479A1; EP2706194A3; AT14169U1; AT14755U1

Designated contracting state (EPC)  
AT BE DE ES FR GB GR IT

DOCDB simple family (publication)  
**EP 0381615 A2 19900808**; **EP 0381615 A3 19910410**; CA 2007292 A1 19900801; CH 677954 A5 19910715; CS 43290 A2 19910716; HU 900276 D0 19900528; HU T59993 A 19920728; JP H02209600 A 19900821; JP H0637840 B2 19940518; US 5054964 A 19911008

DOCDB simple family (application)  
**EP 90810043 A 19900119**; CA 2007292 A 19900108; CH 34289 A 19890201; CS 43290 A 19900130; HU 27690 A 19900125; JP 11885789 A 19890515; US 44926889 A 19891212