

Title (en)  
Hollow nodal element for lattice spatial structures with ribbed profiled rods.

Title (de)  
Hohlknotenpunkt für Raumfachwerke mit Rippenstahlstäben.

Title (fr)  
Noeud d'assemblage creux pour structures spatiales à barres avec nervures.

Publication  
**EP 0349493 A1 19900103 (EN)**

Application  
**EP 89830153 A 19890407**

Priority  
IT 2014388 A 19880408

Abstract (en)  
A hollow nodal element (1) together with its principal fitting elements is described for a lattice spatial structure with ribbed rods (10), consisting in particular of special long pitch pseudo-threaded bars, in high resistance steel. The nodal element (1) is formed of a hollow sphere with internal polygonal walls nad, in any case, with inclined planes into which are provided through holes (3) for the insertion of stringers and diagonal rods. The completing cover (1b) of the sphere fixed by screwing with threaded edges or by means of small passing rods (6), can be a simple sphere section, or it can also have tapered internal planes and through holes for the connection and blocking of diagonal rods in the case of multi-layer links. Internal connecting nuts (5) are provided, of cylindrical shape with a self-blocking inclined plane for fixing the rods to the tapered internal planes of the hollow sphere and cylindrical external lock-nuts (7) on the spherical surface of the knot. There are possibly tubular coverings (13) of the rods (10) with possible static functions in the case of compression stresses.

IPC 1-7  
**E04B 1/19**

IPC 8 full level  
**E04B 1/19** (2006.01)

CPC (source: EP)  
**E04B 1/1903** (2013.01); **E04B 1/1906** (2013.01); **E04B 2001/196** (2013.01)

Citation (search report)  
• [A] DE 3133946 A1 19830324 - MOEBIUS SIEGFRIED ING GRAD  
• [A] US 3882650 A 19750513 - GUGLIOTTA PAUL F  
• [A] FR 2250395 A5 19750530 - ECLAIRAGE TECH [FR]  
• [A] US 3864049 A 19750204 - ONO TAISABURO

Cited by  
CN105234319A; CN113235818A; CN105937271A; DE102007001830A1

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

DOCDB simple family (publication)  
**EP 0349493 A1 19900103**; IT 8820143 A0 19880408

DOCDB simple family (application)  
**EP 89830153 A 19890407**; IT 2014388 A 19880408