

Title (en)  
ANCHOR BOLT FOR GROUND STRENGTHENING

Publication  
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Application  
**EP 83810193 A 19830506**

Priority  
• CH 302382 A 19820514  
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Abstract (en)  
[origin: ES8404462A1] A tie rod assembly for a rock borehole anchor includes a tension rod 3 having a plurality of wedge shaped spreading bolts 10 at its lower end surrounded by spreading sleeve 20 segments 21, and a sleeve 40 on its upper end threaded to a tension nut 60 which bears against a ground support or anchor plate 70 upon installation and tightening. The sleeve 40 mates with the tension rod via saw tooth configured circumferential ridges or fins 45, 46 having increasing inclination angles, to thereby provide for a constant force transmission per unit of tooth length. The tension nut and anchor plate have complementarily configured spherical bearing surfaces 65, 77, and the ground engaging lower area of the anchor plate has fracturable webs 75 to accommodate surface irregularities and projections.

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**E21D 21/00**

IPC 8 full level  
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