

Title (en)  
EXPANSION ANCHOR WITH SPRING ELEMENT

Title (de)  
SPREIZANKER MIT FEDERELEMENT

Title (fr)  
ÉLÉMENT D'ANCRAGE À EXPANSION AVEC ÉLÉMENT RESSORT

Publication  
**EP 3060817 A1 20160831 (DE)**

Application  
**EP 14784217 A 20141014**

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Abstract (en)  
[origin: CA2927957A1] The invention relates to an expansion anchor (1) for anchoring in a drilled hole (99) in a substrate (5), comprising a bolt (10) with a front end (51) and a rear end (52) opposite the front end, an expansion sleeve (20) arranged on the bolt, an expansion cone (12) which is arranged in the region of the front end of the bolt and which presses the expansion sleeve radially outward when the expansion cone is displaced in an extraction direction relative to the expansion sleeve, a counter bearing (8) for axially pressing an attachment part (6) to the substrate, which counter bearing is arranged in the region of the rear end of the bolt, and a spring element (7) arranged on the bolt for axially tensioning the counter bearing against the attachment part. According to the invention, the axial spring force  $F$  of the spring element lies in the range  $F_{min} < F_{max}$  where  $F_{min} = d_{max} \times 0.2 \text{ kN/mm} - 0.8 \text{ kN}$   $F_{max} = d_{max} \times 0.6 \text{ kN/mm}$  if the spring element is axially slackened 0.4 mm to 0.8 mm from its maximum spring travel, wherein  $d_{max}$  is a maximum diameter of the bolt between the expansion cone and the counter bearing.

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