

Title (en)  
ANCHOR DEVICE FOR ANCHORING TIE RODS AND PROCESS FOR ANCHORING SAID TIE RODS

Title (de)  
VERANKERUNGSVORRICHTUNG FÜR VERANKERUNGSSTANGEN UND VERFAHREN ZUR VERANKERUNG DIESER VERANKERUNGSSTANGEN

Title (fr)  
DISPOSITIF D'ANCRAGE POUR BARRES D'ANCRAGE ET PROCÉDÉ D'ANCRAGE POUR CES BARRES D'ANCRAGE

Publication  
**EP 3305991 B1 20191211 (EN)**

Application  
**EP 17194799 A 20171004**

Priority  
IT 201600100902 A 20161007

Abstract (en)  
[origin: EP3305991A1] There is described an anchorage device (1; 1A; 1E) for anchorage tie rods suitable for being inserted into a perforating hole (H) made in a ground to allow anchoring an anchorage tie rod (5). The features of the anchorage device meet the need to increase the efficiency of transferring loads to the ground while almost completely eliminating the extraction problems of the tie rod. Indeed, the anchoring no longer occurs by relying on the friction resistance due to the mortar-ground adhesion, rather it is ensured by the mechanical resistance of penetrating and anchorage plates (40) which are first driven into the side wall (SW) of the perforating hole and then embedded with slurry. Therefore, with such a device, it will be more than sufficient to penetrate about 3 to 4 meters into the active stretch (thus drastically reducing the active length which generally may also reach 40 meters for conventional tie rods), open the penetrating and anchorage plates (40) by means of actuating a hydraulic cylinder, and once the penetration is complete, inject cement grout. Once anchored, the system can no longer be removed because the penetrating and anchorage plates (40), which are now spread and penetrated in the side wall (SW) of the hole (H), have an open diameter which is much greater than the diameter of the perforation, thus achieving, as mentioned, a mechanical type anchoring and no longer a friction anchoring. A process for anchoring anchorage tie rods is also described.

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