

TIE BODY FOR CABLES

The present invention relates to a tie body for cables, specifically prestressed cables for prestressed concrete structures, which tie body is provided at its cable entry end with a means for mounting a tube whereby the mounting connection may be a releasable connection. The cable entry end of a tie body is commonly defined as such side of the tie body which after its mounting in a structure proper faces into such structure, i.e. the inner end of the tie body.

The cable extending into the bore of such a tie body is often surrounded by an encasing tube made from a plastics material, which plastics tube itself must be tightly mounted at the entrance to the tie body so that the operational object of this encasing tube is also achieved at the end of the tie body. Such sleeve-like encasing tubes may under certain conditions be directly mounted on the tie body. Known constructions however, often utilize a so-called adjusting or fitting piece which, for instance, has commonly been connected to a cylindrical extension of the tie body. The mounting or connecting has been carried out, for instance, by wire loops.

What is desired is a construction which allows these tubes manufactured from a flexible, though relatively stiff material to be connected to a tie body without the need of any additional

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mounting or connecting measures.

The present invention provides a tie body having a bore for receiving a cable, the tie body being provided at its cable entry end with means for mounting a tube, comprising an overridable projection located within the bore adjacent its cable entry end to cooperate with a correspondingly shaped section of the tube, the projection being a ridge-like circumferentially extending protrusion arranged concentrically of the bore of the tie body.

10 If, accordingly, there is a circumferentially extending recess in the outer wall of the tube to be mounted, the tube can be mounted in a way similar to a snap connection to the tie body, the tube overriding the protrusion until the protrusion enters the recess. If necessary, such snaplike-connection can be
15 disconnected without any further ado. The recess in the tube may be formed by the protrusion itself, if the material of the tube is sufficiently cold-formable.

The invention will be described further, by way of example, with reference to the accompanying drawings, in which:

20 Figure 1 is a cross-sectional view of part of a concrete structure provided with a tie body; and

Figure 2 is a detail of the construction shown in Figure 1 on an enlarged scale.

In Figure 1 there is shown a tie body 2 embedded in concrete representing a structure 1. A prestressing cable 4 is mounted or anchored by the agency of wedges 3 in the embedded tie body. The end of a plastics tube section 7 is mounted in the bore 6 of the tie body, specifically at the end 5 of entry of the cable into the tie body 2. The mounting is achieved by means of an overridable projection 8, which cooperates with a corresponding recess in the plastics tube section 7.

The tube section 7, which in the embodiment illustrated is shaped in the form of a so-called adjusting or fitting piece, acts as transition for the tightly sealed connection of the plastics encasing tube 9 proper, which encasing tube 9 surrounds the prestressing cable 4 in the manner of a sleeve. The connection between the tube section 7, i.e. the adjusting or fitting piece, and the encasing tube 9 is carried out, for instance, by means of an adhesive strip 10 as known in the prevailing art.

It is accordingly quite obvious that speedy mounting of the tube section 7 to the tie body 2 can be carried out without any additional aid, without any additional structural member or tube, etc.

In Figure 2 there is shown the area proper at which the tube section 7 is connected to the tie body 2, Figure 2 being drawn on an enlarged scale. The main structure is here the overridable projection 8, which fits into a corresponding recess of the tube section 7 or which penetrates by deformation into the tube 7 if the tube 7 is made of a material which is cold formable.

As can be clearly seen from Figure 2, the ridge-like annular protrusion constituting the projection 8 is provided preferably with a relatively

gently ascending or decreasing slope 8' for facilitating the insertion of tube 7.

5 In order to allow exact placing of the tube section 7 the face surface of this tube 7 abuts, in the embodiment shown, an end stop 8" provided in the tie body.

Due to this simple mounting arrangement for an encasing tube or fitting piece, a seal link between the concrete structure 1 and the cable 4' can be achieved quite easily.



CLAIMS

1. A tie body having a bore for receiving a cable, the tie
body being provided at its cable entry end with means for mounting
a tube, comprising an overridable projection located within
5 the bore adjacent its cable entry end to cooperate with a
correspondingly shaped section of the tube, the projection being
a ridge-like circumferentially extending protrusion arranged
concentrically of the bore of the tie body.
 2. A tie body substantially as described with reference to,
10 and as shown in, the accompanying drawings.
 3. A prestressed concrete structure including a cable having
an end received by a tie body according to any preceding claim,
the cable being surrounded by a tube mounted in the tie body,
the said projection entering a recess in the exterior of the
15 tube.
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