Cable joint to FFLP cables for provisional repair with quick installation.

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The use of FFLP cable "low pressure fluid filled" was discontinued during '90s in this country due to lack of technological development in cables and components and hard competition of XLPE cables among others manufacturers interests. Among other is, for example, the improvement of techniques to locate the oil leaks and to develop effective techniques to repair them. This work presents a development that allows to significantly reducing assembling time of 138kV FFLP strait joint: with elimination of lead welds to close the casing, pre-manufacture of paper notches, conductor connection made mechanically without pressing. Enabling assembly and reclose at least 6 hours. This development was carried out in a Brazilian Utility (LIGTH of Rio de Janeiro) as an alternative to improve the contingency of the southern zone of the city of Rio de Janeiro UG 138kV grid.

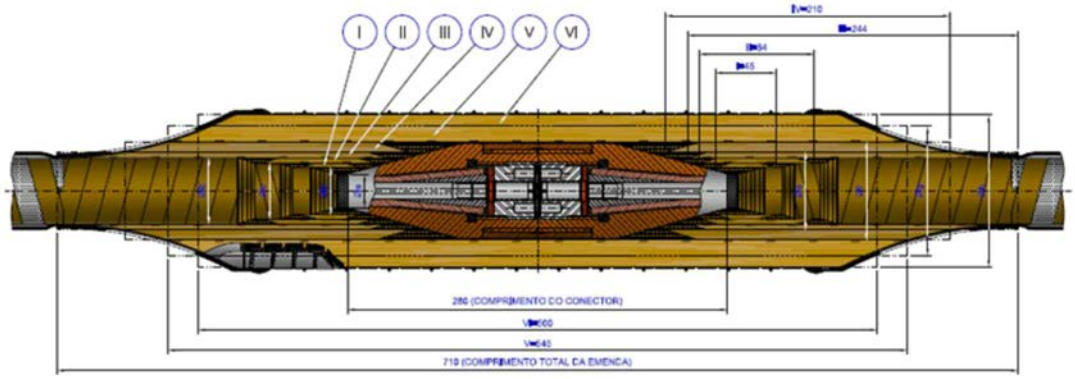

Fig - 1 cross section view of joint

In the fig - 1 above is presented a longitudinal view of the strait joint cables class 145kV AC 650kV BIL where relevant pairs of the connector and the pre-fabricated notches appear to neighboring connector and joints of paper rolls. Only these two improvements in the making of the amendment can reduce about two hours in the assembly.

Fig - 2 assembled joint after IEC 60141 tests

The figure above is a complete view of the assembled strait joint after treatment and before testing AC and IMPULSE TEST. The most important part is shown at the ends of the joint where one can see no plumbing welds in this place. This has been considered the most innovative part of this work. These details and all other innovations to solve the "trouble shooting" constitute a substantial part of this work.

Key words Cables, Underground, Joint, Assembly, Provisional repair, Contingency